DOCUMENT RESUME

ED 312 494 CE 053 652

TITLE	Interior Design.
INSTITUTION	Texas Tech Univ., Lubbock. Home Economics Curriculum Center.
SPONS AGENCY	Texas Education Agency, Austin. Div. of Vocational Programs.
PUB DATE	Jul 89
NOTE	163p.; For related documents, see CE 053 650-654.
AVAILABLE FROM	Home Economics Curriculum Center, Box 4067, Texas Tech University, Lubbock, TX 79409-4067.
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Color Planning; Design Requirements; *Electrical Appliances; *Furniture Arrangement; *Home Furnishings; Housing; *Interior Design; Interior Space; *Lighting Design; Occupational Home Economics; Offices (Facilities); Physical Environment; Secondary Education; Spatial Relationship (Facilities)

ABSTRACT

This document contains teacher's materials for an eight-unit secondary education vocational home economics course on interior design. The units cover period styles of interiors, furniture and accessories, surface treatments and lighting, appliances and equipment, design and space planning in home and business settings, occupant needs, acquisition of professional services, and career options and adjustments for professionals in the interior design field. Materials for each unit include a conceptual outline shown in the left-hand column of each page that corresponds to applicable learning activities and evaluation experiences in the right-hand column. Key points for content discussion and methods for developing critical thinking skills are designated. Content areas relevant to developing basic academic skills are also marked, as are those areas relevant to developing skills within the elements common to all vocational education courses. Fifty-one teaching aids keyed to the learning and evaluation experiences are included in the document. (CML)

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ED312494

INTERIOR DESIGN

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Lubbock, Texas 79409-4067

Directed by:
Texas Tech University
College of Home Economics
Lubbock, Texas

In Cooperation with:
Texas Education Agency
Department of Curriculum and Instruction
Division of Vocational Programs
Vocational Home Economics Education
Austin, Texas

CE053652

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ACKNOWLEDGEMENTS

This *Interior Design* guide was prepared by the Home Economics Curriculum Center staff through funding from the Texas Education Agency, Austin, Texas, under Part B, Program Improvement, of Public Law 98-524, in cooperation with the College of Home Economics, Texas Tech University, Lubbock, Texas. The Division of Vocational Home Economics Education, Texas Education Agency, provides supervision and directional guidance for curriculum development.

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INTERIOR DESIGN

Interior Design is one of the various curriculum guides developed for use in Vocational Home Economics Education in Texas. Guides are available for secondary education in the areas of Comprehensive and Technical Home Economics and Job Specific Home Economics (including courses designed for academically disadvantaged and handicapped students). Other guides are available for adult education and postsecondary education in home economics subject training areas.

Overview of the Guide

Each subject guide is written to the teacher and is correlated closely with the Essential Elements prescribed by the State Board of Education in Texas Administrative Code 75.50 (b), and 75.83 (a) through (x). The competencies in each guide are the essential elements and the sub-competencies are the sub-elements prescribed in the Texas Administrative Codes for Vocational Home Economics. The conceptual outline as shown in the left hand column (corresponding learning and evaluation experiences in the right hand column) relates to the sub-element of each unit. Teaching Aids keyed to the learning and evaluation experiences are located at the end of each book. Designations have been used in the content for developing skills within the Common Elements to all vocational education courses with a designation of [C]. The application of basic/academic skills has been given a designation of [B]. Key points for content discussion and review have been given a KEY QUESTION designation, and methods for developing critical thinking skills have been given a CRITICAL QUESTION designation.

Particular care has been taken to provide age appropriate concepts and learning activities. Teachers will need to exercise judgment, initiative, imagination, and creativity in working cooperatively with students, parents, school administrators, and local advisory council members to develop a local program that will serve the students enrolled in Vocational Home Economics Education. The subject area guides are intended to guide the content, not dictate the content.

> **Teachers should not expect to use all of the suggested experiences in one class nor feel that all are needed to teach one essential element (which includes the competency and sub-competencies). The variety of experiences included should enable teachers to select and use those teaching/learning experiences that will help students reach the objectives.**

An excellent resource for information on teaching all students is the book *Guide to Teaching*. The book addresses methods for teaching students with varying learning levels. It also provides special guidelines and information regarding the at-risk students and the disabled or handicapped students.

TAC 75.83
INTERIOR DESIGN

(s) Interior design (1/2 unit) shall be a laboratory-oriented course and shall include the following essential elements:

(1) Concepts and skills related to period styles of interiors. The student shall be provided opportunities to:

(A) point out characteristics of period styles; and
(B) describe the influence of period styles on interior design.

(2) Concepts and skills related to furniture and accessories. The student shall be provided opportunities to:

(A) describe aesthetic and functional aspects of furniture;
(B) identify role of accessories; and
(C) explain selection, use, and care of furniture and accessories.

(3) Concepts and skills related to surface treatments and lighting. The student shall be provided opportunities to:

(A) outline criteria for selection, use, and care of materials for walls, floors, ceilings, and window treatments;
(B) discuss the functions and principles of lighting; and
(C) identify lighting types and methods of control.

(4) Concepts and skills related to appliances and equipment. The student shall be provided opportunities to:

(A) identify the functional and aesthetic aspects of appliances and equipment;
(B) determine the process for selection; and
(C) describe the use and care of equipment.

(5) Concepts and skills related to use of design and space planning in homes and business settings. The student shall be provided opportunities to:

(A) apply elements and principles of design;
(B) relate user activities to space allocations and arrangement;
(C) identify functions of public, private, and service zones; and
(D) explain considerations for placement of furnishings.

(6) Concepts and skills related to occupant needs. The student shall be provided opportunities to:

(A) contrast design practices used to meet the occupant needs in homes and in business settings; and
(B) explain the effect of technology on interior design practices.

(7) Concepts and skills related to acquisition of professional service. The student shall be provided opportunities to:

(A) identify available design resources;
(B) identify responsibilities of the person providing interior design services; and
(C) determine costs and benefits of professional services.

TAC 75.83
INTERIOR DESIGN
UNIT I

COMPETENCY: (s.1) *Concepts and skills related to period styles of interiors.*

SUB-COMPETENCIES:

(A) *Point out characteristics of period styles.*

(B) *Describe the influence of period styles on interior design.*

CONCEPTS

I. Period styles of interiors
   A. Characteristics of period styles

LEARNING AND EVALUATION EXPERIENCES

NOTE: It is not required that the units be taught in the order presented in the book. For instance, you might wish to teach Unit V, Section A, Elements and Principles of Design, first because this information provides a basis for the entire course.

Lead a class discussion regarding definitions for the terms *style*, *period*, and *period style*. Explain that style refers to design characteristics that identify the work of a famous designer or school of designers, period refers to a measure of historical duration, and period style indicates the design(s) for which a historical period is famous. NOTE: All three terms are generally used interchangeably.

Ask students to read selected resources on period styles of furniture and identify the historical period(s) to which the following styles belong: ball and claw feet, cabriole legs, bentwood, shell motif, and scroll motif. KEY QUESTIONS: Which of these design features appear during more than one historical period? Which of these design features appear in new furniture today?[B]

Show students Teaching Aid 1, French, English, American, and Contemporary Styles of Furniture, to illustrate period styles of furniture. Lead a class discussion on characteristics that identify furniture styles for different periods.[C]

Have students collect pictures of furniture illustrating the following five period styles: English, French, Spanish, American, and Contemporary. Ask students to classify the pictures according to the period styles. KEY QUESTIONS: Why is it important to recognize the various types of furniture styles? Are some furniture styles more functional than others? Why? How may knowledge of furniture styles aid one in selecting new furniture, used furniture, or antiques? How may it contribute to an understanding of

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[B] = Basic Skill Reinforcement
[C] = Common Essential Element

adaptions of various styles? How may knowledge of the functional aspects of furniture affect selections?

Using Teaching Aid 2, Historical Comparison of Chairs, lead a class discussion on the design characteristics of chairs during different periods. KEY QUESTIONS: Which style is the oldest? the newest? What design characteristics have been carried over from past styles to present styles? What are some adaptations of past styles? What changes were made to fit contemporary lifestyles?

Take students on a field trip to a furniture store. Have students identify the styles of furniture on display and examine combined styles that form an "eclectic" look. Have each student decide which furniture style he or she prefers and write a paper identifying reasons for his or her preference. Ask students to include factors that influenced their decisions. CRITICAL QUESTIONS: Do you think the style of furniture you select as a young adult will still be your choice after twenty-five or thirty years? Why?[B]

For a Student Occupational Activity, have students identify furniture styles in five homes or in pictures, videotapes, or slides. Ask students to record the styles of furniture they identify and to include written notations about the characteristics that made the identification possible. KEY QUESTIONS: What were the most common styles found? What combinations of styles were found?[B] [C]

B. Period influences on interior design

Have students read resources related to the period influences on interior design. Divide the class into groups to research the various periods in each of the following five styles: American, English, French, Spanish, and Contemporary. For example, the French style includes the Renaissance, Louis XIV, Louis XV, Louis XVI, Directoire, Empire, and French Provincial periods. Have each group elect a leader to record information and to give a brief oral report to the class. Have students develop a chart on the chalkboard or on butcher paper to show a comparison of the periods within the style. Students should include characteristics of the periods such as dominant colors, typical woods, floor coverings, architectural features of the house, window treatments, accessories, and size factors in their reports. Lead a class discussion about students' findings.[B] [C]

Assign oral reports on noted architects or furniture makers. Examples include the following:

1) Chippendale
2) Duncan Phyfe
3) Eames

4) Hitchcock
5) Hepplewhite
6) Sheraton

Have each student read information and give an oral report in class on the time period in which the person lived, the training or experience the person had, and the influence the person had on styles of furnishings and interiors.[B] [C]

Divide the class into groups and assign each group a period to research for interior design characteristics. Ask the groups to draw pictures or write words on flash cards that describe their assigned periods. Examples include the following: light colored floors, hardwood floors, massive furniture, arched windows and doors, and plastic use. Have each group elect a spokesperson to report to the class on the characteristics the group identified for its assigned period. Conduct a class competition, similar to a spelling bee, to determine which group can correctly identify the most characteristics of the various periods.[B] [C]

Provide catalogs of reproduction furniture for students to use. Have students research for information about places authentic reproductions of period styles of furniture can be purchased. Have students include availability, cost, and authenticity in their research. KEY QUESTIONS: How does the cost of reproductions compare to the cost of original pieces? How does the quality compare?[B] [C]

TAC 75.83
INTERIOR DESIGN
UNIT II

COMPETENCY: (s.2) *Concepts and skills related to furniture and accessories.*

SUB-COMPETENCIES:

(A) *Describe aesthetic and functional aspects of furniture.*

(B) *Identify role of accessories.*

(C) *Explain selection, use, and care of furniture and accessories.*

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
II. Furniture and accessories A. Aesthetic and functional aspects of furniture 1. Aesthetic qualities of furniture	Ask students to define the term *aesthetic*. Lead a class discussion about the following quotation: "Beauty is in the eye of the beholder." KEY QUESTIONS: Does everyone agree on what is "beautiful" or "pleasing to the eye"? Why? What role does personal taste play in determining what is beautiful?[C] Lead a class discussion on fashion trends in furniture. Provide students with several magazines or catalogs to find examples of current trends in home furnishings. Point out that past trends have included Spanish, Early American, and Country.
a. Materials	Take students to visit a furniture store or have them examine picture frames made from woods, metals, and plastics. Have students compare the aesthetic qualities of the different types of materials. KEY QUESTIONS: What aesthetic qualities does each material have? Which material feels warmer to the touch? Which material would be easiest to clean? Which material would be the strongest? Do materials used for furniture change with fashion trends? Why? Have students read selected references about materials used in furniture construction such as wood, plastic, and metal. KEY QUESTIONS: What are the most commonly used materials for furniture construction? How do materials change in regard to fashion trends?[B] Have students read selected references about the different types of wood used for furniture. Ask students to define *hardwood*, *softwood*, *solid wood*, *grain*, and *veneered wood*. Lead a class discussion regarding the colors of the most popular woods used in making furniture. KEY QUESTIONS: What aesthetic qualities are

[B] = Basic Skill Reinforcement
[C] = Common Essential Element

present in the different types of wood? Which wood has the lightest color? the darkest color?[B]

Show students examples of types of woods used in furniture construction such as cherry, oak, mahogany, and walnut. Examine characteristics of each type of wood including aesthetic qualities, durability, availability, and cost. As a follow-up, have students determine the types of wood found in furnishings in their own homes.

Ask students to find pictures of rooms in interior design magazines that have furnishings made of metals. KEY QUESTIONS: What aesthetic effects do metals have on a room's appearance? What appears to be the predominant metal used?

Set up a display of as many samples of plastic as possible for students to examine. Examples include the following: PCV type lawn furniture, vinyl bean-bag chairs or cushions, Formica® samples (table tops and countertops), and infant carriers and car seats. Lead a class discussion on the aesthetic qualities of the plastic items.

b. Color, texture, and pattern in fabrics

Have students read information in selected references on the types of fabrics used for upholstery. Lead a class discussion on how upholstery fabrics are selected based on the intended use and wear the upholstered item is expected to receive. Give each student a copy of Teaching Aid 3, Selecting Upholstery Fabrics, to evaluate each student's comprehension of upholstery fabrics and its selection.[B]

Ask students to read selected references regarding color. Have students look at a color wheel as you lead a class discussion regarding the importance of color as an aesthetic quality of furniture.[B]

Show students some upholstery fabric swatches of various types of patterns and textures. Example patterns include the following: floral, striped, abstract, plaid, and geometric shapes. Examples of textures include the following: ribbed, pile, smooth, and novelty. Lead a class discussion about the combinations of various patterns and textures that should be considered when planning a room design. CRITICAL QUESTIONS: Will the fabric be as appealing in five years as it is at the present time? Why?

Provide some colorful squares of patterned upholstery fabrics. Have students select a fabric swatch for a sofa and select swatches for other upholstered furniture pieces based on the colors in the patterned fabric. KEY QUESTIONS: Did the selected fabric print lead to pleasing color combinations? Why? Are the colors you like

currently "in fashion" for home decorating? What other items can be used as guides for planning color schemes?

Divide the class into groups. Assign each group one of the following types of rooms: a cheerful breakfast room, a children's playroom or bedroom, a formal living room, a master bedroom, a dining room, or a guest bedroom. Have the groups plan aesthetically pleasing color schemes and choose fabric selections for upholstered furniture in the assigned rooms. Ask each group to elect a leader to present an oral class presentation explaining the appropriateness of the colors, patterns, and textures of the fabrics selected. KEY QUESTIONS: How would the selected colors affect the mood of the family and guests? Do colors have different effects on different people? Why? How would the size of the room affect any patterned fabric selections? How does the purpose of the room help determine the textures of fabrics to be used for upholstery?[C]

Have each student identify a favorite major piece of furniture in his or her home. Ask students to write a short paper on why it is their favorite piece of furniture and give a brief oral report to the class. The report should include such factors as the color, design, shape, comfort, and texture of the piece of furniture. Where the piece of furniture is located and the reason it was identified as a major piece of furniture also should be included.[B]

2. Functional aspects of furniture

Lead a class discussion to identify the roles of furnishings in a home. These roles might include functional aspects such as the type, number, and size of rooms; activities that will take place in the rooms; family size; and lifestyle. Show students Teaching Aid 4, Basic Home Furnishings, as a guide for determining basic furnishings for various areas in the home.

Ask students to define *multipurpose furniture*. Lead a class discussion regarding furnishings that serve more than one function or purpose. Point out to students that these types of furnishings promote a variety of uses for a room as well as promoting more overall use of the room. KEY QUESTIONS: Based on the type of furnishings in a room, can the room be used for more than one function? If so, what are the functions? If not, how may the furnishings be adjusted in order for the room to serve more than one function?

Have students locate pictures depicting multipurpose furniture such as card tables, sofa beds, and others. Ask students to write descriptions of how various pieces of furniture could be used in more than one way. Lead a class discussion on the advantages of purchasing this type of furniture, including its advantages when funds are limited. KEY QUESTIONS: Will the furniture adapt to

meet changing needs of the family in various stages of the life cycle? What are the advantages and/or disadvantages of multipurpose furniture?[B]

Define and lead a class discussion on *improvised furniture.* Examples include the following: bricks and boards for bookcases; ironing boards as serving tables; wire cable spools for tables; and cubes for storage, tables, or extra seating. KEY QUESTIONS: What would be the advantages of improvised furniture for families on limited budgets? for college students living in dorms or apartments?

Have students view pictures of a massive upholstered chair and a streamlined molded plastic chair. Ask students to make written comparisons of the two chairs and include reasons why they would select one chair over the other when both pieces of furniture serve the same function.[B]

Take students to a store that sells unfinished furniture. Ask students to watch a demonstration by store personnel or a videotape about how to apply finish to furniture, or have students use mail-order catalogs to see what types of unfinished furniture are available. Have students compare prices of finished and unfinished furniture. Ask students to report on the price comparison in class. Lead a class discussion on whether the function of the furniture is affected by its being unfinished when purchased. KEY QUESTIONS: Which type of the furniture–finished or unfinished–would be the best selection for various lifestyles? Why?[B] [C]

B. Role of accessories

Have students read selected references on accessories for the home. Lead a class discussion on the role of accessories in decorating. Point out to students that accessories usually reflect the personalities of the occupants of the home. Explain that accessories may be categorized as functional, decorative, or both.[B]

Set up a display of functional and decorative accessories in the classroom for students to examine. The functional items might include books, clocks, lamps, mirrors, screens, and fireplace tools. The decorative accessories might include craft items, figurines, pictures, plants, pottery, sculptures, and wall hangings. KEY QUESTIONS: Which accessories could be both functional and decorative? What determines whether an accessory is functional or decorative?

Give each student a picture of a room from an interior design or housing magazine. Have students list all the accessories in the picture and classify them as either functional, decorative, or both.

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	KEY QUESTIONS: How do accessories add the finishing touches that make a room or home attractive and personal? Can the interests or personalities of the occupants be identified from the accessories in the room? Why?[B]
	Have students look through magazines or catalogs to identify new trends and current fashions in accessories. Ask students to give brief oral reports on the trends they identified. KEY QUESTIONS: Do trends in accessories seem to be reflected more in functional or in decorative items? In what colors are the accessories available?[B] [C]
	Ask each student to bring to class an accessory or a picture of an accessory that reflects his or her personality, personal hobby, or interest. Allow students to show the accessories to the class. Lead a class discussion on various ways the accessories can be used in homes.
C. Selection, use, and care of furniture and accessories 1. Selection of furniture a. Making a plan	Lead students to list immediate and long-term considerations in planning for the selection of home furnishings. Explain to students how immediate and long-term plans should relate to each other. KEY QUESTIONS: How are they similar? different? What are examples of each? How may immediate plans be part of long-term plans? How will family needs affect shopping plans? How do well-defined plans for furnishing a home help families realize goals?
	Divide the class into groups and ask each group to read Teaching Aid 5, Case Study on Furniture Selection. Have each group develop a long-term plan (over three years) and a short-term plan (over one year) for the purchase of home furnishings for an apartment. Each group will need to develop values, determine problems, and predict the outcomes of their plans. Students might obtain prices from catalogs or advertisements in the newspaper. Have each group elect a spokesperson to report the group's plans to the class. Compare the long-term shopping plans with the immediate shopping plans developed in each group and then compare with plans from other groups. KEY QUESTIONS: What influenced the group's decision about which pieces of furniture to buy first? What other options, besides purchasing new, could an individual use for obtaining furniture?[B] [C]
	Ask each student to make an immediate and long-term plan for obtaining home furnishings for one of the case studies on Teaching Aid 6, Buying Furniture Case Studies. To expand the project, assign incomes to each case study and provide floor plans to meet each situation. Using graph paper and furniture templates, have students assess furnishing needs. Have students develop a chart to assist in summarizing the report on the project with

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	columns labeled: "Furniture Owned," "Furnishings Needed," "Recommended Purchases," and "Amount to Spend." Have students present each case to the class.[B] [C]
b. Buying guidelines	Show students Teaching Aid 7, Furniture Buying Guidelines. Lead a class discussion on the guidelines listed and other considerations regarding furniture selections. KEY QUESTIONS: Will the furniture selections fit the purposes for which they are intended? Is the quality appropriate for the use? Will it fit the interior design of the room? Do family members like it? Will it fit into the family budget?[C]
	Invite a furniture store owner or manager to speak to the class and identify high priced, moderately priced, and economically priced furniture. Have the speaker explain the relationship of price to durability, style, and construction. Guide students in preparing questions prior to the speaker's arrival. Ask students to write a summary of the information given by the speaker. KEY QUESTIONS: What factors influence the cost of furniture? How do the factors vary between department, outlet, and furniture stores? Does quality relate to cost? Why?[B] [C]
	Lead students to brainstorm for a list of guidelines for comparison shopping when purchasing furniture. Have students develop a comparison chart on advantages and disadvantages of paying cash and using credit. KEY QUESTIONS: Why is it important to comparison shop? How does it increase the possibility of making a satisfactory purchase? How do family resources affect furniture selection? What other factors influence selection?[C]
	Show students Teaching Aid 8, Buying Furniture–Methods of Payment. Lead a class discussion regarding the methods of payment included on the teaching aid. KEY QUESTION: Why would adding a furniture payment to a home loan be a poor choice?[C]
	Have students bring various furniture advertisements from newspapers or magazines to class. Point out that some advertising may not state prices of merchandise or composition of materials used. Have students read and select advertisements that include items identified by manufacturer, price, and purchasing opportunity. Lead a class discussion on sale prices and other advertising information included in advertisements.[B]
	Obtain labels, seals, and warranties from various types of home furnishings. Obtain more than one label from each type of home furnishings so that comparisons can be made. Lead a class discussion about the information found on each label. Have students research laws affecting the labeling of home furnishings.

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	KEY QUESTIONS: Do some of the labels contain information that is not required? What benefits does this give the consumer?
c. Checking construction	Have students read information in selected references regarding the woods and techniques used in furniture construction. Lead a class discussion on the differences found in the construction of wood furniture. Examples include veneer and solid wood furniture construction. KEY QUESTIONS: Which woods are best suited for furniture construction? Why does solid wood cost more?[B]
	Have students view an audiovisual about furniture construction. NOTE: Audiovisuals may be available from the Education Service Center or the Furniture Manufacturer's Association. After students view the audiovisual, ask them to prepare written summaries of the methods used in furniture construction and features to look for that identify quality.[B]
	Ask students to read information in selected references regarding the use of plastic, glass, and metal in furniture construction. Lead a class discussion on the costs of furniture items made from these materials. KEY QUESTIONS: Are these construction materials as durable as wood? Why? When wood is used with plastic, glass, or metal in furniture construction, how is the price affected? How does the price compare with furniture made from wood?[B] [C]
	Lead a class discussion on the three types of springs–coil, flat, or box–that are commonly found in furniture. Obtain examples of each to display. KEY QUESTIONS: In what type of furniture are these common types of springs used? Why are different springs used for different pieces of furniture?
	Visit the Industrial Arts laboratory in school for a demonstration of joint construction techniques in furniture, or have students study Teaching Aid 9, Types of Construction Joints. KEY QUESTIONS: Where are each of these joints commonly found on furniture? Which are the most sturdy? least sturdy? Which type of joints symbolize quality furniture?
	Show students Teaching Aid 10, Construction of an Upholstered Chair, and lead a class discussion on how an upholstered chair is made. Ask students to take apart an old or discarded upholstered chair or sofa to examine its various components. Have students identify the various materials used in the upholstered parts and types of wood framing, joints, and springs used.
	Ask students to examine chairs at their homes to see if they can identify the construction techniques or materials used. Explain that turning the chair over and looking at the base of the chair may help with some identification of construction techniques. KEY

QUESTIONS: What type of joints were used in the base of the chair? If the chair was upholstered, did the pattern in the fabric match where seams occurred?

Take students to a furniture store to examine some new furniture. Ask them to check the construction techniques used on drawers and doors in differently priced chests or cabinets. KEY QUESTIONS: Did the drawers slide in and out easily? Was a drawer guide installed in the center, underneath the drawer? Was there a dust protector (a thin layer of wood attached to the chest or cabinet underneath the drawer) between the drawers? Did doors open and close easily?

d. Other options

Ask students to visit stores that sell new, used, and unfinished furniture. Have students compare price, quality, and construction for a selected item of furniture, such as a breakfast table and chairs, at the three types of stores. KEY QUESTIONS: Which store had the best quality at the best price? What are sources of used furniture other than a store? What are some of the advantages of buying used or unfinished furniture instead of new furniture? What are the disadvantages?[B] [C]

Have students observe an upholstery demonstration by inviting a resource person to class or taking students to visit an upholstery shop. Have students determine the tools needed, the approximate amount of time needed, the various pieces used, the skills needed, the selection of fabrics available, and the cost of having various pieces of furniture upholstered. Ask students to compare the upholstery prices to the purchase prices of new furniture of similar quality.[B] [C]

Have students view a display of items available for refinishing used furniture. Demonstrate the proper procedures for refinishing furniture. KEY QUESTIONS: What special skills are needed to refinish furniture? How much time, energy, and money is needed to refinish furniture? In terms of quality and price, what are the differences between refinishing used furniture and purchasing new furniture?[C]

As a Student Occupational Activity, assign projects to students such as refinishing or reupholstering pieces of furniture. Suggest that students take pictures of the steps performed in the project to show the skills used. Have students use the pictures to report on the project in class.[C]

2. Use and care of furniture

Lead a class discussion regarding the use of furniture. Point out that hard use and lack of care may shorten the "life" of a piece of furniture. KEY QUESTIONS: With reasonable use and care, how long should furniture last? What is reasonable use and care?

Have students demonstrate procedures and products for cleaning furniture. Explain the difference between routine maintenance and occasional maintenance. Have students develop checklists to help them keep records of when furnishings were routinely cleaned and occasionally cleaned. KEY QUESTION: Why should record keeping be a part of furniture maintenance?[B]

Assign students to use the telephone book and classified advertisements from the local newspaper to identify local home cleaning agencies that would clean upholstered furniture. Have students investigate the cost of this service. Lead a class discussion on other alternatives available to consumers.[B]

Demonstrate for students how to test upholstery fabric to determine if it has a water-resistant finish by pouring water from a glass on several fabric swatches. NOTE: Check fabric swatches before class to be sure at least one has a water-resistant finish. Explain to students that if the water beads up instead of soaking in immediately, the fabric has a water-resistant finish that helps protect it from dirt and stains. Lead a class discussion on the benefits of upholstery fabrics that have water-resistant finishes. Point out to students that even these fabrics will eventually need to be cleaned and that the cleaning process does remove the finish. Have students apply a water-resistant finish to a fabric swatch that originally did not repel the water, then have students test the fabric again after the applied finish has dried.

Lead a class discussion on the ingredients in cleaning supplies and glues used in repairs. Lead a class discussion on the effects these ingredients may have on furniture finishes. KEY QUESTIONS: Which ingredients are the most hazardous? the safest? Which ones should not be used together?

Bring to class various types of furniture polishes and waxes. Look at the ingredients lists on the products and evaluate ways the consumer decides the best product for furniture. KEY QUESTIONS: Why is the selection important? How do the prices of the products compare?

Ask students to read selected references on making minor furniture repairs. Use the chart on Teaching Aid 11, Furniture Repair, as a basis for discussing furniture repair with students. KEY QUESTIONS: How can money be saved by making simple repairs at home? What situations might occur in which it would be best to hire someone to do repairs? Why may some home repair projects not lead to savings?[B]

Identify commercial products available for consumers to repair scratches, chips, nicks, burns, water damage, and other furniture

damages. Lead a class discussion about how repairs are affected by the direction of the grain and the finish on the furniture.

As a Student Occupational Activity, have students complete one minor furniture repair at home. Ask students to write papers summarizing the procedures they used.[B]

3. Selection of accessories

Have students review the principles of design. Lead a class discussion on the application of those principles to the selection of accessories. Ask each student to select a room picture and identify examples of the design principles. Ask the students also to identify the focal point and types of accessory arrangements displayed in the room. KEY QUESTIONS: What major theme is expressed by the room decor? How do the accessories influence the theme of the room? How have the elements and principles of design been utilized in the room? How was color used in the room? Were bold, bright colors used in the room? If so, where? CRITICAL QUESTIONS: Why is it important to choose colors that one will feel comfortable with for a long time? Why is it important to choose some objects that can be replaced without large investments? Which principles of design were followed by grouping various sized pictures on the wall or by combining decorative objects? Can accessories be used for emphasis?[B]

a. Plants or flowers

Invite a resource person from a plant or flower shop to demonstrate ways to use plants or floral arrangements as accessories. Have the speaker include the costs of materials used in making arrangements of both silk and fresh flowers or plants. Guide students in preparing questions prior to the speaker's arrival.[B] [C]

Ask volunteers to investigate the cost of supplies for making silk arrangements at a craft store and report to the class. Students should compare the cost of purchasing arrangements to designing arrangements themselves.[B] [C]

Have students view the videotapes on flower arranging, *Floral Design from Concepts to Beauty*, available from the Home Economics Curriculum Center, Texas Tech University, Lubbock, Texas. NOTE: If videotapes are not available, have students read references on floral design techniques. Lead a class discussion about the various design shapes of arrangements such as circular and L-shaped. KEY QUESTION: When and where are the various shapes of arrangements used in a room?

b. Pictures

Invite a resource person to present information to the class about the selection of prints, lithographs, photographs, etchings, posters, paintings, or handwork as accessories. Ask the speaker to demonstrate procedures for matting and framing. Prior to class,

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	have students submit written questions to be answered at the end of the presentation.[B] [C]
	Lead a class discussion about do-it-yourself methods of matting and framing pictures or handwork. Include information about finishing techniques and materials. Ask students to investigate costs for materials and report to the class. Lead a class discussion on comparison of costs for commercial matting and framing versus the do-it-yourself method. KEY QUESTIONS: What are the advantages and disadvantages of do-it-yourself methods and commercial methods? Would there be satisfaction in doing the job yourself?[C]
c. Decorative objects	Display a variety of sizes and shapes of pillows in class. Have students read information on making pillows in selected references. Lead a class discussion about adding color accents by using the pillows.[B]
	Conduct a design contest for unique pillows, beautiful pillows, or holiday pillows. Have students make the pillows or judge designs done on paper. FHA/HERO could use the winning designs to make pillows for a fund-raising project.
	Ask each student to bring one decorative object to class. Examples include the following: candles, candle holders, decorative boxes, books, figurines, seashells, driftwood, and vases. Divide the class into groups to practice making attractive arrangements for coffee tables or end tables using three to five objects in each arrangement. Remind groups to use the principles of design. NOTE: Allow each group to select objects from the total collection. The same object may be used by more than one group, and other objects may not be used at all. KEY QUESTIONS: Which type of object was most in demand for the arrangements? Were some objects more difficult to use than others? Why? How important is color, shape, and size to composing attractive arrangements?
4. Use and care of accessories	Invite a speaker from a plant nursery to present information on use and care of houseplants. Ask students to prepare written questions in advance and written summaries following the presentation. KEY QUESTIONS: What kinds of plants need the most light? the least light? How should dust be removed from the leaves? How much water do houseplants require? How often should the plants be fertilized?[B] [C]
	Bring old silk arrangements to class or ask students to bring old arrangements that need cleaning. Have students experiment with different cleaning methods such as pressure cans of air to remove dust, cans of hair spray or spray starch to restore body, and washing the flowers in detergent. Have students practice

arranging the flowers in different ways. KEY QUESTION: Which cleaning method seemed to work best?

Lead a class discussion about methods for hanging pictures including information on formal arrangements, informal balance arrangements, linear arrangements, and groupings. Explain to students that pictures may be hung singly, especially if the picture is large. Have students cut various sizes and shapes of newsprint or butcher paper to practice making group arrangements. Students should display, describe, and justify their best arrangements. CRITICAL QUESTION: How may these arrangement guidelines be used in other situations?

Ask students to read selected references on ways to determine heights for hanging wall arrangements or single pictures. KEY QUESTIONS: Will people using the room usually be standing or sitting? How should items be placed on walls by stairways? Is the arrangement in proportion to the wall and to the nearby furniture? How can you test the placement before hanging the picture(s)? (Tape pieces of paper, cut the same size and shape as the pictures, to the wall.)[B]

Lead a class discussion to review the basic rules for hanging pictures or accessories that have been studied. Give students copies of Teaching Aid 12, Wall Arrangements, and have them select and arrange items for evaluation. Students may add color to the items with colored pencils. Lead a class discussion on the students' wall arrangements.

Lead a class discussion regarding how maintenance should be considered before a final decision to purchase accessories is made. Point out maintenance of items such as the following: fabric pleated lamp shades, glass objects, pillows, baskets, books, picture frames, and brass and silver objects. KEY QUESTIONS: How would maintenance affect selection of accessories? What are maintenance requirements for each item? Does the value or maintenance requirements influence accessory choices most?

TAC 75.83
INTERIOR DESIGN
UNIT III

COMPETENCY: (s.3) *Concepts and skills related to surface treatments and lighting.*

SUB-COMPETENCIES:

(A) *Outline criteria for selection, use, and care of materials for walls, floors, ceilings, and window treatments.*

(B) *Discuss the functions and principles of lighting.*

(C) *Identify lighting types and methods of control.*

CONCEPTS

III. Surface treatments and lighting
  A. Selection, use, and care of walls, floors, ceilings, and window treatments
    1. Walls
      a. Types of walls and wall treatments

LEARNING AND EVALUATION EXPERIENCES

Have students read selected references on interior walls and wall treatments. Lead a class discussion on various types of walls including: plastered, drywall or gypsum, brick, stone, wood paneled, wood shingled, and ceramic, plastic, or metal tile. Also discuss various types of wall treatments including: paint, wallpaper, fabric, and wood paneling. Ask students to define the following list of terms associated with walls and wall treatments: *drywall, plaster, enamel, latex, acrylic, oil-based, hiding power, motif, mural, pattern repeat, pre-pasted, pre-trimmed, washable, stucco, and sheathing.*[B]

Demonstrate how to calculate square footage for walls and wall surfaces. Divide the class into groups to research the current cost of constructing the most common types of walls used in the area. Assign each group a specific wall type. Have groups obtain figures on the cost of supplies and labor needed to construct walls in a room that is 14' X 16' with 9' ceilings, has one interior door, and two windows that are 24" wide and 82" tall. Ask each group to elect a leader to report to the class on the construction costs involved in the group's assigned wall type. Have a volunteer record the costs for each type of wall construction on the chalkboard so that students can make cost comparisons. Point out to students that often when housing is selected, the walls are already in place and the occupant has no choice about construction materials or costs. However, when people build new homes, they can choose construction materials themselves. This kind of information becomes very important. KEY QUESTIONS: Which type of wall construction in your area is most expensive? least expensive? Does the labor cost vary for the different types of walls? What maintenance is involved for each type of wall construction?[B]

[B] = Basic Skill Reinforcement

[C] = Common Essential Element

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Invite a local builder, trades and industry teacher, or representative from a supply house to make a presentation to the class on characteristics of the various types of walls. Ask the speaker to bring examples. Characteristics of walls include durability, insulation qualities, acoustical qualities, and the cost and amount of maintenance required. Guide students in preparing questions prior to the speaker's arrival. After the presentation, ask students to prepare written summaries of the information presented.[B] [C]
	Ask students to search through magazines to find examples of as many different types of wall treatments as possible. Have students give brief oral reports to the class on the number and types of examples they found. KEY QUESTIONS: Were any of the examples unique? Were traditional wall treatments in the majority? How many examples of painted walls were found? How many examples of papered walls were found? Did there appear to be any particular trends such as the use of bright, dark, or pastel colors?[C]
b. Selection of walls and wall treatments	Identify for students some factors to consider when selecting types of walls. Examples include the following: 1) Availability of resources and costs for upkeep 2) Degree of desired individuality 3) Degree of desired formality 4) Room decor (style of furniture and accessories) and planned use 5) Visual relation between ceiling and floor 6) Energy saving needs 7) Trends in decorating Lead a class discussion on the selection of wall types based on the factors listed above. KEY QUESTIONS: Would a consumer use all the factors listed above in selecting a wall type? What other factors might also be used?
	Lead a class discussion on the types of wall treatments that might be suitable for various family situations. Divide the class into groups. Assign each group one of the following family situations to develop an oral report about suitable wall treatments for specific situations: 1) Bedroom for a limited vision six-year-old child 2) Bedroom for twin girls 3) Living area for a young married couple 4) Bedroom for a retired person who lives in his or her own home 5) Family room for family of seven (with three teenagers, grandfather, grandmother, mother, and father). Ask each group to elect a leader to report to the class on the family situation and recommendations of the group for suitable wall treatments.[C]

Lead a class discussion regarding the fact that when individuals lease or rent housing or purchase existing housing, changes may be needed in wall treatments. Therefore, it is important to know how to determine what various treatments will cost in order to make a wise choice. Have students read selected references on methods for figuring costs of various wall treatments. KEY QUESTION: Which wall treatments are the easiest for do-it-yourself applications?[C]

Have students tour a home supply center or a house(s) under construction to view different types of wall treatments. Have store personnel or builders explain the cost of supplies and application of the wall treatments. Also ask the speaker to give students information about the number of square feet a gallon of paint will cover, the dimensions of single and double rolls of wallpaper, the sizes of sheets of paneling, and how amounts needed are determined for each type of wall treatment. Ask students to take notes on the costs, measurements, and methods of calculating amounts needed of the various wall treatments. KEY QUESTIONS: Which wall treatment or finish is least expensive? Which wall treatment is most popular in your area?[B] [C]

Have students calculate square footage for a wall surface, using a room that measures 10' x 12' with 8' ceilings. Have students calculate amounts of wallpaper, paint, and wood paneling needed. Have them research the cost of each type of treatment for the room. Have students select high and low prices for wallpaper, paint, or wood paneling. Ask students to develop a chart that illustrates prices. KEY QUESTIONS: How much paint would it take to give the walls one coat? two coats? How many double rolls of wallpaper with a 20" pattern repeat would be needed for this room? How many sheets of paneling would it take to cover the walls? What are the major reasons for the cost differences? What are other important considerations for selecting a particular wall treatment?[B]

Lead a class discussion about formal and informal wall treatments. Show pictures or slides of rooms in which paint, glass, wallpaper, and wood paneling are shown in both formal and informal situations. KEY QUESTIONS: What makes the wall treatment formal or informal? Which, if any, of the wall treatments lend themselves to being formal or informal?

Show students slides, pictures, or videos of wall treatments that illustrate variety in mood, color, and use of pattern. Ask students to find additional illustrations and write descriptions of how wall treatments may indicate a person's individuality in decorating. Have students report to the class on their various wall treatment projects.[B] [C]

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Identify unusual or creative wall coverings for the class. Examples include mirrored walls, padded fabric walls, or carpeted walls. Estimate costs of each example and explain how each wall covering achieves a specific effect. Have students find examples from magazines of unusual or creative wall coverings for each room in a house. KEY QUESTIONS: What effect does selection of this type of wall covering have on the rooms' maintenance? Do people tend to tire of an unusual wall treatment sooner than they tire of a more traditional one? Why?
	Have students find illustrations of rooms that are examples of the following: 1) walls, ceilings, and floors of the same color 2) walls and ceilings of the same color 3) walls and floors of the same color 4) ceilings and floors of the same color. KEY QUESTIONS: What relationship do the walls provide for the floors or ceilings in a room? What role does the color of walls play in a room? Which combination would make a room look larger? Which combination would make a room look smaller?
	Invite an interior designer or decorator to speak to the class on current trends in wall treatments. If a resource person is not available, identify trends through catalogs or magazines. Guide students to develop written questions prior to the speaker's arrival.
c. Use and care of walls and wall treatments	Invite a representative from a utility company to speak to the class about the relationship of wall types and energy use. Prepare students for the speaker by helping them develop appropriate questions prior to the class. KEY QUESTIONS: How much more heating and/or cooling would be required if the walls on the north side of a home were constructed with glass? the south side? What kind of window treatments could be used to help control warm or cool air loss? How much difference would there be in utility bills if the wall was paneled?[C]
	Show an audiovisual that demonstrates the proper procedures for applying paint, wallpaper, and paneling. Have students write summaries of the information learned from the audiovisual.[B]
	As an enrichment experience, have students select a wall treatment such as painting or wallpapering, to practice on 8' X 4' sheets of gypsum wallboard in the classroom. NOTE: Merchants might donate materials from discontinued stock for this project and the same pieces of wallboard could be used over a period of several years. KEY QUESTIONS: Why is it necessary to remove old wallpaper before applying new wallpaper? Why is it important to properly prepare the surface before applying any wall treatment?[B]

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Ask students to read selected references about methods of care appropriate for the various types of walls and wall treatments. Lead a class discussion on the products, equipment, and techniques that would simplify cleaning and caring for walls and wall treatments.[B]
2. Floor coverings a. Types of floor coverings	Ask students to read information in selected references on various types of floor coverings. Lead a class discussion that clearly distinguishes between hard (resilient and nonresilient) and soft floor covering. Have students prepare written definitions of the following terms: *resilient, vinyl, nonresilient, hardwood, parquet, random plank, ceramic tile, terrazzo, rug, carpet, padding, jute, fiber, ply, pile, density,* and *backing*.[B]
(1) Hard	Show students samples of both resilient and nonresilient hard floor coverings. Have students identify and describe the characteristics of each type of floor covering. KEY QUESTION: What are the advantages and disadvantages of each type of hard floor covering? Divide the class into groups. Assign each group to research and write a report about one type of hard floor covering. The groups should include in their reports the areas of a home in which their assigned types of flooring are appropriate, the flooring's average cost per square foot, the flooring's life expectancy or durability, and the colors and patterns available in this type of flooring. Ask each group to select a leader to give an oral report to the class.[C] Evaluate student comprehension by selecting examples of various types of hard floor coverings. Have students classify each type as resilient or nonresilient.
(2) Soft	Lead a class discussion on various types of soft floor coverings. Collect samples of carpets (looped, shag, and sculptured) and rugs. Show samples to the class and lead a class discussion on pile, density, and fibers (wool, nylon, and cotton) used in making rugs and carpets. Ask each student to select one type of soft floor covering to research. Have students read information in selected references on how rugs or carpets are made, the characteristics of rugs and carpets made by different construction methods, how to determine quality of rugs and carpets, and the approximate costs per square yard of the rugs and carpets. NOTE: Rugs are usually priced by room sizes, but students can convert this price to a square yard price for comparison purposes. Have students prepare comprehensive written reports summarizing information found on the selected types of soft floor coverings. Have each student give a brief oral report in class.[B] [C]

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Lead a class discussion regarding the advantages and disadvantages of hard and soft floor coverings. Include in this discussion cost, durability, and desirability comparisons. KEY QUESTION: What factors affect decisions on floor covering selections.
	Have students summarize characteristics, advantages, disadvantages, and costs of floor coverings. Ask students to make charts with the headings type, characteristics, advantages, disadvantages, and cost. Students should record information on the following types of floor coverings: asphalt tile, brick, carpeting, rugs, ceramic tile, concrete, cork tile, linoleum, rubber tile, stone, terrazzo, vinyl-asbestos tile, vinyl sheet tile, wood, and slate. NOTE: This chart could be easily adapted for summarizing information on ceilings or walls. Obtain cost information from catalogs or from a visit to a home supply store.[B]
b. Selection of floor coverings	Have students determine costs of four different types of flooring–brick, wood parquet tile, vinyl tile, and wall-to-wall carpeting–for a family room that measures 14' x 17'. Provide a sample of each of the types suggested with the price per square foot or per square yard. Ask students to determine how much of each type of floor covering would be needed and to figure the cost of materials for each type. Have students prepare written and oral reports on their findings. KEY QUESTIONS: Which of the four floor coverings is the least expensive? most expensive?[B]
	Lead a class discussion on the importance of color, texture, and pattern choices in floor coverings. Point out that floor coverings are important to the total design of a room, are major financial investments, and should be chosen with care. KEY QUESTIONS: What colors and/or patterns would make a room look cooler? warmer? What colors and/or patterns would make a room look smaller? larger? How would the texture of the carpet or floor covering affect the formality or informality of the room?
	Have students read articles and survey magazines or floor covering stores to discover recent trends in floor coverings used in housing. Ask students to give oral reports on their findings. KEY QUESTIONS: Which is used most often, hard or soft floor coverings? Which hard coverings are used most often? Which soft coverings? Which type of floor covering looks most formal? informal? Which patterns in floor coverings are preferred? Which colors are most popular? CRITICAL QUESTIONS: What are the reasons for the trends? Which floor covering trends emphasize functional characteristics and aesthetic characteristics? How much emphasis should be placed on floor covering trends when selecting products to meet the needs of certain situations? How has technology influenced floor covering trends?[B] [C]

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Demonstrate how to check "pile" in different types of carpet samples. Bend back one corner of a carpet sample to expose the backing and the number of tufts per square inch. Point out to students that the quality of carpet is determined by its backing, which should be stiff and resist bending; the fiber content; the density of pile, which is the number of tufts per square inch; and the pile height. KEY QUESTIONS: Why is this simple test important? How would a carpet's pile height affect its use in high traffic areas?
	Provide a description of a family, including the number of members, their activities, and their interests for students to consider. Have students work in groups to choose types of floor coverings for all areas of the family's home based on upkeep, formality, durability, sanitation, and amount of traffic. Ask groups to elect leaders to give brief oral reports in class about reasons for selecting floor coverings.[C]
	Evaluate student comprehension by having each student examine three or four samples of floor coverings. Have students write lists identifying the types of floor coverings and the advantages and disadvantages of each floor covering.[B]
c. Use and care of floor coverings	Obtain labels from different floor coverings. Ask students to compare the information on the labels about characteristics such as construction, flammability, resiliency, durability, and care. KEY QUESTIONS: What information is required on floor covering labels? Did some labels provide more information than necessary? Where should labels or care information be kept for future reference?[B]
	Lead a class discussion on how factors such as amount of traffic, exposure to dirt and moisture, and availability of resources for upkeep influence the life expectancy of floor coverings. Set up a demonstration on equipment and products necessary for floor care including a dust mop, a wet mop, an all purpose cleaner, a vacuum cleaner, wax, a carpet cleaner, and a stain removal product. Have students develop a chart to indicate the floor care supplies needed for each type of floor covering.
	Have students perform stain and soil removal testing on carpets, vinyl, and wood floor samples. Create stains with soft drinks, hot chocolate, lipstick, mud, mustard, candle wax, machine oil, and fingernail polish. Ask students to try different products for stain and soil removal on each of the samples. KEY QUESTIONS: What parts do fiber or finish play in stain or soil removal from carpets? Which floor sample was the easiest to clean? Which was the most difficult? Which products worked best? Did any one product work well on all the floor types?

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Ask students to read information on use of padding under carpets or rugs. Show examples of various types of padding with prices included and ask students to describe advantages and disadvantages of each type. KEY QUESTIONS: Why is it important to use a rug pad or carpet pad? How does the cost of the pad selected affect wearability?[B]
	Lead a class discussion on the use of carpet remnants as a source of rugs or carpet for small rooms. KEY QUESTIONS: Why would a remnant be a good choice of floor covering for some rooms, such as dorm rooms? How does the cost of carpet remnants compare to regular carpet prices?
3. Ceilings a. Types of ceilings	Ask students to read selected references about ceilings and various types of ceiling materials or treatments. Have students use the periodicals provided to locate illustrations of each of the following ceiling types: 1) cathedral 2) exposed beam 3) suspended 4) flat 5) coffered 6) barrel vaulted Have students share illustrations they found with the class. Lead a class discussion and define the following ceiling material terms: *suspended acoustical, plastered, sprayed on acoustical, wood boards or panels, wallpaper, fabric,* and *gypsum board.*[B]
	Divide the class into groups to research characteristics, advantages, disadvantages, and cost factors of different types of ceilings. Have each group select one type of ceiling and develop a chart on which to record researched information. Ask each group to elect a leader to present an oral report to the class about information researched. Lead a class discussion comparing the features of each type of ceiling.[B] [C]
	Have students compare the aesthetic values of different types of ceilings including smooth, fabric covered or draped, wood beams, wallpaper, and paint. Show slides and illustrations of these examples. Lead a class discussion on students' reactions to the illustrations. KEY QUESTION: How does the texture, color, and pattern of the ceiling impact the room decor?
	Ask students to find illustrations from periodicals of ceilings on which distinct pattern(s) have been used. Lead a class discussion on the effects patterned ceilings have on rooms. KEY QUESTIONS: Which principles and/or elements of design would apply to using patterns on ceilings? Would the patterned ceiling appear higher or lower?

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
b. Selection of ceilings	Locate illustrations of rooms with formal and informal ceilings. KEY QUESTIONS: What makes the ceiling formal or informal? To what extent do other parts of the room seem formal? How are ceiling treatments influenced by wall treatments? In a room with very dark walls, what ceiling treatment would be appropriate? To visually lower a high ceiling, what treatment would be appropriate? To visually raise a low ceiling, what treatment would be appropriate? Have students look through housing periodicals to locate articles or examples of new ceiling materials, or invite a home builder or designer to share new ceiling trends with the class. Guide students to prepare appropriate questions prior to the speaker's arrival. Have students write summaries on new trends in ceilings and ceiling materials.[B] Make four photocopies for each student of Teaching Aid 13, Relationship of Floors, Walls, and Ceilings. Have students use tempera paints or felt markers to conduct the following experiments: 1) Shade the entire ceiling with a dark value (leave walls and floor white) 2) Shade the two side walls with a dark value (leave the end wall, floor, and ceiling white) 3) Shade the end wall and the floor with a dark value (leave side walls and ceiling white) 4) Draw a design on all three walls using a medium value (leave floor and ceiling white) Lead a class discussion on the illusions and relationships created in each room.
c. Use and care of ceilings	Lead a class discussion on the care of each of the following types of ceilings: 1) cathedral 2) exposed beam 3) suspended 4) flat 5) coffered 6) barrel vaulted KEY QUESTIONS: Which types of ceilings are easiest to care for? hardest to care for? Give students problem room situations such as a room without windows, a dark paneled room, and a room with a small high window. Have students use examples of floor coverings, wall coverings, and ceiling materials to demonstrate ways these finishes can solve the problem situations. KEY QUESTIONS: How may backgrounds be used to highlight or subdue structural aspects of rooms, direct attention to furnishings, change the

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	apparent shape or size of rooms, absorb sound, or reflect light? What moods do backgrounds create in rooms? Lead a class discussion about energy saving materials used for ceilings. Have students identify factors that make the materials save energy.
4. Window treatments a. Types of windows and window treatments	Have students read selected references about windows. Explain the historical progression of windows from shutters to the modern types of windows. Lead a class discussion on the functions of windows. Ask students to find definitions for the following terms related to windows: *casement, jalousie, garden, double hung, sliding, bay, clerestory, dormer, picture, arched,* and *awning*. KEY QUESTIONS: Are all windows functional? What are the advantages and disadvantages of windowless rooms? Which rooms in a home are most likely to be without windows? Why? Why do classrooms in some schools have no windows? What is your reaction to this? What are the advantages and disadvantages of permanently sealed windows?[B] Lead a class discussion about Teaching Aid 14, Parts of a Window. Ask students to find definitions for the terms listed on the teaching aid. NOTE: Ask students to use the dictionary and selected references to find the correct definitions.[B] Display Teaching Aid 15, Types of Windows. Have students review design or housing periodicals to locate illustrations of different window types. Assign each student a different window type to search for in the periodicals. Ask each student to keep a record of the number of times his or her assigned window type is pictured in the periodicals. Have groups elect leaders to report findings to the class. KEY QUESTIONS: Which types were found most often? least often?[B] [C] Lead a class discussion on how energy use is related to windows. KEY QUESTIONS: Which part of the window most affects energy use? What are the advantages of using insulated glass, plate glass, or other types of glass? Which types of glass should be used for energy conservation purposes? Have students read selected references about window treatments. Use Teaching Aid 16, Window Treatments, to present information and illustrations of several types of window treatments. NOTE: This teaching aid would be useful as a test for students to identify window treatments. Lead a class discussion to define terms related to window treatments including the following: *hand (drapery fabric), stackback, buckram, custom-made, lining, durability, and swag*. KEY QUESTION: What are the functions of window treatments?[B]

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
b. Selection of window treatments	Lead a class discussion on factors that determine suitable fabrics for window treatments. Lead a class discussion on the characteristics of different fabrics. Examples of characteristics include the following: drapability; sheerness; ease of care; appearance; energy conservation features; and resistance to fading, shrinking, and/or stretching. Give each student a copy of Teaching Aid 17, Window Treatment Chart, and lead a class discussion on the characteristics associated with various window treatments. KEY QUESTIONS: Which treatments would provide privacy and ventilation? Which treatments could be used to make windows appear larger? Have students use fabric sample books or swatches to identify fabrics for curtains or draperies to be used for specific window treatments. Have students work in groups to select fabric examples appropriate for a master bedroom, a formal living room, a kitchen, a bathroom, a sun porch (south), a nursery (east), and a utility room (west). Ask each group to elect a leader to give an oral report on the group's selections. KEY QUESTIONS: Which areas of the house would require the most privacy? Which fabrics would be suitable for a living room that faces the street? the back yard? Why? Why do window treatments for east or west windows require special considerations?[C] Lead a class discussion about other types of window treatments such as shades, blinds, vertical blinds, and shutters. Have students investigate the costs of each of these types of window treatments by referring to catalogs or newspaper advertisements. KEY QUESTIONS: What are the advantages and disadvantages of this type of window treatment? Could this kind of window treatment be installed by the average person? How would the price of custom-made and custom-installed shutters compare to the price of standard sized stock shutters purchased from a department store? Have each student select an appropriate window treatment for a large window overlooking an unattractive view. Have students choose a window treatment from Teaching Aid 16, Window Treatments, or from illustrations in interior design magazines. Ask each student to give brief oral reports to the class stating reasons for his or her selection.[C] Lead a class discussion on selecting window treatments for a rented apartment or home. Have students locate examples of economical types of window treatments. KEY QUESTIONS: What factors should be considered in selecting window treatments for rented housing? What are some economical window treatments?

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Take students on a tour of a drapery shop or drapery department in a store. Ask students to note the different types of window treatments and hardware on display. Arrange for a designer or decorator to talk with students about new trends in window treatments. Have students write reports on information learned during the field trip.[B]
	Lead a class discussion on the amount of fullness to allow for flat (not pleated) curtains to be hung on a curtain rod. Point out that for fullness, allow at least two and a half times the width measurement for medium weight fabric and allow three times the width measurement for sheer fabric. KEY QUESTIONS: If you want to purchase a sheer curtain for a window that is 48" wide, how wide should the curtain be? (144") How wide will each panel be if the curtain is divided in the center and tied back on each side? (72")
	Develop a resource list of businesses, stores, or catalogs where window treatments can be purchased. Conduct a cost comparison for a selected type of window treatment using a standard sized window.[B]
c. Use and care of window treatments	Demonstrate to students how to measure for various window treatments. Have students measure a standard sized window for a floor length drapery that is 4" above the frame and 4" outside the frame on each side. Ask students to record the actual window frame measurements and the width and length measurements for installation. Provide students with copies of Teaching Aid 18, Measurement Options for Window Treatments, and Teaching Aid 19, Measuring Lengths for Various Window Treatments, to reinforce instructions given in the demonstration. CRITICAL QUESTIONS: Why is it important to measure a window accurately before purchasing or selecting window treatments? Why is it important to recognize the parts of a window when measuring for window treatments?[B]
	Lead a class discussion on how to calculate yardage from window measurements for making curtains or draperies at home. Include amounts to add for hems, headings, and allowances for pattern repeats on printed fabrics. Students may also need information on figuring amounts for linings, trims, and crinoline (stiff fabric used at the top of pinch pleated draperies for body). More detailed information on measuring, calculating yardage, and making draperies and curtains can be found in *Home Furnishings Aide* teacher's guide, from the Home Economics Curriculum Center, Texas Tech University, Lubbock, Texas.
	Display examples of drapery hardware, or have students look at pictures of drapery hardware in catalogs or brochures. Identify

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	hardware necessary for various types of window treatments. Point out the characteristics of the hardware and include the cost of each. Assign students to figure the cost of double traverse rods for three 48" wide windows.[B]
	Ask students to read selected references on the care requirements for various types of fabrics used for window treatments. Have students find additional information in catalogs or from labels attached to draperies and curtains at stores. KEY QUESTIONS: What kind of care is needed for formal draperies made of antique satin? How could nylon sheers be cleaned?[B]
	Lead a class discussion on the care requirements for wooden shutters, miniblinds, and window shades. KEY QUESTIONS: How should dust be removed? What kind of cleaning products and/or equipment would be suitable for wooden shutters? for miniblinds? for fabric window shades?
B. Functions and principles of lighting 1. Functions of lighting	Have students read selected references about the functions and principles of lighting. Lead a class discussion to define terms related to lighting including *direct, indirect, mixed, natural, artificial, diffused, incandescent, fluorescent, foot-candle, wattage, valance, cove, soffit, cornice,* and *bracket.*[B]
	Lead a class discussion on each function of lighting. KEY QUESTIONS: Why is light needed? In what ways can light add beauty? How can lighting contribute to your well-being? What part does quality and quantity play in the function of lighting? How can inadequate lighting cause eye strain?
	Apply the functions of lighting to various situations. Provide periodicals for students to use to locate examples of lighting. Have students identify the functions of lighting in each picture. Ask students to share examples with the class.[C]
	Show an audiovisual about home lighting to reinforce information regarding functions of lighting. Ask students to prepare written summaries of the information presented. KEY QUESTIONS: What functions did you locate while viewing the audiovisual? What moods were set in the various rooms as a result of using different types of lighting?[B]
2. Principles of lighting	Ask students to read selected resources regarding how light is measured. Lead a class discussion on the light meter as the device used to measure foot-candles. KEY QUESTION: What is a foot-candle?[B]
	Lead a class discussion on various room lighting needs in the home. Point out that the activities performed in the room and the

colors used in the room dictate the kind and amount of light needed. Examples include the following:

1) A living room for conversation =10/20 fc
2) A bedroom for casual reading or grooming=20/50 fc
3) A kitchen for cooking food=50/100 fc
4) A hobby room for crafts requiring fine detail work for a prolonged period=100/200 fc

Point out to students that light colors reflect more light than dark colors. KEY QUESTIONS: Which rooms require the most light? What room do you use for homework? What kind of lighting is in the room where you study? How much light is needed in hallways or stairways for safety? Can some areas of the same room require different lighting? Will a wood paneled room absorb more light than a room with light walls? Why?

Ask students to read resources on application of lighting including general lighting (direct and indirect), local lighting, and accent lighting. Lead a class discussion on the application principles of lighting. KEY QUESTIONS: Which lighting could be used on a picture or a sculpture? Which lighting provides sharp contrast between dark and light?[B]

Use the following room situation to lead a class discussion on distribution of lighting and color in lighting. A living room is 16' x 18'. All walls are painted dark navy blue. There are two large windows along one wall, no windows on the opposite wall, and one small window on each of the end walls. A fireplace takes up most of the space on one of the end walls. Wall outlets are found on two of the walls. Ask students to consider lighting distribution. KEY QUESTION: What are some possible ways the lighting needs can be met?

C. Types of lighting and methods of control
   1. Types of lighting

Lead a class discussion on the importance of considering both natural and artificial sources of light when planning the placement of lighting in a home. Point out that natural light sources include windows, glass doors, and skylights, while artificial sources include both incandescent and fluorescent lighting. KEY QUESTIONS: How does window size, type, and location affect the natural lighting in a room? How can light from a skylight be filtered? What are the advantages of incandescent lighting? disadvantages? What are the advantages of fluorescent lighting? disadvantages?

Invite a lighting specialist from a local power company to speak to the class and to compare the wattage, location, efficiency, initial cost, heat production, life expectancy, and aesthetic qualities of fluorescent and incandescent lighting. Have the speaker provide information on energy conservation. Guide students to prepare written questions prior to the speaker's arrival.[B] [C]

Ask students to define the major methods of light dispersal: *direct, indirect, mixed,* and *diffused lighting.* Use Teaching Aid 20, Methods of Light Dispersal, as an illustration of each type. KEY QUESTIONS: Which type of light dispersal is best for general activities? Which type is best for specific jobs like sewing?

Conduct an experiment on lighting. Have students compare light from several different sources including a frosted bulb, a colored bulb, a cool white fluorescent tube, and a warm white fluorescent tube. Place the lights so that students can compare the light from the bulbs and tubes to sunlight. Select a piece of fabric for students to place under the various lights so students can compare "colors" of lights. Shine all lights on a white surface and then on a colored surface. KEY QUESTIONS: How does artificial light compare to sunlight? Do some of the bulbs and tubes have the same color of light? What differences are apparent on the white surface? the colored surface? Why?

Ask students to name and describe the major types of ceiling light fixtures. Ceiling fixtures include chandeliers, spot lights, track lighting, recessed lighting, soffit lighting, and luminous ceiling lighting. Use Teaching Aid 21, Ceiling Fixtures, for illustrations.[C]

Lead a class discussion on the different types of lamps (floor, pole, and table) as sources of light. KEY QUESTIONS: What are the advantages and disadvantages of each type of lamp? Where should the bottom edge of a lampshade be in relation to the person using the lamp?

Lead a class discussion on types of indirect lighting including cove, cornice, valance, track, recessed, spot, and bracket. Show students illustrations on Teaching Aid 22, Indirect Lighting. KEY QUESTIONS: What are the purposes of indirect lighting? What are possible effects of inadequate lighting? What are diffusers? What are the methods of diffusing light? How can the source of a room's lighting affect the decor?

Have students study a light reflection chart that illustrates the amount of light reflected by various colors. Have students determine how light from windows and light reflected by floors, walls, and ceilings influence the type and amount of artificial light needed.[B]

Use Teaching Aid 23, Room Lighting Needs, to lead a class discussion about various lighting needs. Ask students to analyze specific lighting problems. Divide the class into groups and assign each group one of the following lighting problems:

1) A study desk has a very dark top

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	2) The only source of light in a large room is a single high intensity lamp 3) General lighting in a room is provided by a bare bulb in the ceiling 4) Bathroom light switches are placed too high for small children Ask each group to elect a leader to report the group's solution to the class.[B] [C]
2. Methods of control	Lead a class discussion on how methods of control affect lighting. Bring a lamp to class and two or more types of lampshades (one black or very dark and one white or very light). Demonstrate how the type of shade controls the amount of light available. Repeat the same activity using a lamp that has a bowl or reflector. Have students assess the advantages and disadvantages of these two types of control. Explain the use of toggle switches and rheostats in room lighting. Arrange for students to visit a room where a rheostat is installed. KEY QUESTIONS: What factors should be considered when selecting a toggle or rheostat? How is the mood or atmosphere of a room altered by the selection? What is the purpose of a dimmer switch? How does it control the light in a room? Review illustrations of rooms where cornices, coves, and valances were used as methods of control for lighting. KEY QUESTION: What effect do each of these types of lighting control have on the level of light in a room? Have students read information on the use of new technology in lighting such as computers, timers, and lighting controlled by noise or movement. Have students share ideas and information in oral reports to the class. Lead a class discussion on the meaning of an electronic cottage/home. KEY QUESTION: What are the advantages of having electronic devices in the home?[B] For a Student Occupational Activity, have students determine the ideal lighting needs for the living room/family room area of their homes. Have students record the information on a chart with the following headings: 1) room or area 2) window direction 3) daylight controlled by 4) activities in the room 5) mood desired 6) local tasks 7) decor CRITICAL QUESTIONS: Does the present lighting provide for the needs of your family? If not, how could it be improved?[B]

TAC 75.83
INTERIOR DESIGN
UNIT IV

COMPETENCY: (s.4) *Concepts and skills related to appliances and equipment.*

SUB-COMPETENCIES:

(A) *Identify the functional and aesthetic aspects of appliances and equipment.*

(B) *Determine the process for selection.*

(C) *Describe the use and care of equipment.*

CONCEPTS

IV. Appliances and equipment
  A. Functional and aesthetic aspects of appliances and equipment
    1. Functional aspects of appliances and equipment

LEARNING AND EVALUATION EXPERIENCES

Have students define the term *function* and write paragraphs relating their definition to appliances and equipment. Ask volunteers to share their ideas in class and give examples of the function of refrigerators, ranges, microwave ovens, dishwashers, washers, dryers, and vacuum cleaners. [B]

Lead a class discussion on how the economic, social, and technological changes taking place in the United States affect the design and function of appliances and equipment. Include information on the following:

1) The high standard of living (as compared to other nations)
2) The increasing number of working women (51% of the work force)
3) The increasing number of two income families
4) The decreasing household size (2.75 persons in 1980 census)
5) The increasing number of single parent families
6) More single-person households
7) More people living in apartments
8) The trend toward smaller houses due to high costs
9) The conservation needs for natural resources

CRITICAL QUESTIONS: How does a high standard of living affect the number of appliances considered necessities? How will the number of women working influence the demand for time and energy saving appliances? How will the high costs of energy, water, and basic materials influence consumer expectations of equipment performance? What changes in equipment are occurring because of advances in technology? How will more single person households affect the sale of washers, dryers, freezers, and dishwashers? What effects will smaller homes and apartments have on the size of equipment and appliances in the future?

[B] = Basic Skill Reinforcement
[C] = Common Essential Element

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Have students view magazines or catalogs to identify the variety of household appliances and equipment available. Lead a class discussion on distinguishing between equipment that is necessary and equipment that is nice to have. KEY QUESTIONS: How may basic equipment needs be determined? What kinds of equipment may be included with the rental or sale of a housing unit?
	Divide the class into groups and have each group find current information on a major appliance selected by the group. The checklist could include the following headings: size, features, price, and "best buy" information. Ask each group to elect a leader to report to the class. Have students compare information reported from the different groups. NOTE: Provide copies of *Consumer Reports* from which students can obtain current information.[B] [C]
	Lead students to brainstorm for a list of small appliances. Have students cite the functions associated with each of the small appliances. NOTE: It might be helpful in developing the list to designate some categories such as food preparation, personal care, clothing care, cleaning, comfort (ceiling fans, portable fans, room air conditioners, space heaters, electric blankets or sheets), entertainment, and safety. KEY QUESTIONS: What small appliances are necessary to maintain a household? What small appliances would be convenient to own? Can any of the small appliances perform more than one function? Is it possible to have too many small appliances? Why?
2. Aesthetic aspects of appliances and equipment	Lead a class discussion to define *aesthetic appeal of major appliances*. Examples of characteristics that provide aesthetic appeal include the following: 1) Different textures available on refrigerator surfaces 2) Use of glass (clear or black) for appliance fronts 3) Different colors of appliances 4) Interchangeable door panels for major appliances KEY QUESTIONS: What are the advantages and disadvantages of some of the aesthetic features? How does aesthetic appeal influence people's choices of appliances? How do large and small appliances differ in aesthetic appeal?
	Ask students to look through current housing magazines to locate illustrations of the colors currently being used for major appliances. Have students read articles in magazines on new color trends for major appliances. KEY QUESTIONS: What influences appliance color changes? What were popular colors in the past? How frequently do major appliance colors change?[B]
	Invite a person who paints appliances to speak to the class on the procedures used, the major appliances that can be updated by this method, and the costs and time involved in the process. NOTE:

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Automobile body shops sometimes provide this service. Guide students to prepare written questions prior to the speaker's arrival. KEY QUESTIONS: Which appliance is most frequently updated by changing the color? Is it important that all appliances match in color?[B] [C]
	Arrange to borrow from a local merchant some new small kitchen appliances that are counter top and the same appliances that are space savers (such as a coffee maker, can opener, or toaster oven that can be installed underneath the upper cabinets). Have students examine the appliances and compare the labels and other information available on the two types of appliances. Ask students to write essays describing and justifying their appliance preferences. KEY QUESTIONS: What makes space saver appliances appealing? Would it be practical for every available appliance to be purchased in a space saver version? Why?[B]
B. Selection of appliances and equipment	Ask students to read references on the selection and purchase of appliances and equipment. Show students Teaching Aid 24, Bargain Time, to lead a class discussion on the best times of the year to purchase home appliances and equipment. KEY QUESTIONS: When are the best prices or yearly sales for appliances and equipment? Why is it important to shop for major appliances when they are on sale? CRITICAL QUESTIONS: What if the washing machine quits working and sales on washers do not occur for another two months? What are the alternatives? Should one wait for the sale? What are the consequences of each alternative?[B]
	Lead a class discussion on how needs and wants affect the selection of appliances. Ask students to analyze the following situation: Janie and her family have had the same refrigerator for the past ten years. The refrigerator seems to be working fine. Recently, Janie has started looking at the newer models that have more features and newer colors. KEY QUESTIONS: Was there a need or a want identified? What was the basis for the need or want? What are Janie's alternatives.
	Lead a class discussion on how purchases are influenced by each of the following factors: design, construction, features, safety, and care requirements. Have students work in groups to prepare written lists of factors that affect the quality and price of equipment purchased by an individual or a family. Ask each group to select a leader to report to the class. KEY QUESTIONS: What features indicate quality of home equipment? Is the top-of-the-line equipment always the best buy? Why?[B] [C]
	Have students debate the following statement: "You get what you pay for." Have students select a piece of equipment from two

sources to compare the relationship between quality and price. KEY QUESTIONS: What are some instances in which consumers might get more than they paid for? Which item is superior in quality? higher in price? What is the relationship between quality and price for this item?

Have students work in groups to develop a space requirements chart for major appliances. Headings on the chart should include the appliance name, dimensions (width, height, and depth), clearance for installation, work space needs, and other needs. Assign each group a specific appliance to investigate. Students should include information on any special wiring and/or plumbing requirements under "other needs." Have each group elect a leader to give an oral report to the class. KEY QUESTIONS: What problems can arise from purchasing equipment that will not fit in the available space? If space is a problem, what are the alternatives (relocating the appliance, purchasing a smaller model, buying a stackable washer/dryer or combination washer/dryer)?[B] [C]

Lead a class discussion about hidden costs to consider when purchasing appliances. KEY QUESTIONS: Will any additional wiring or plumbing be required? Will there be an installation charge? Will there be a delivery charge? Will there be pressure to purchase a maintenance contract?

Lead students to brainstorm for types of room cooling equipment that may be used in the home. This equipment includes room air conditioners, portable fans, and ceiling fans. Lead a class discussion on operating costs of this type of equipment. KEY QUESTION: What are the advantages and disadvantages of each type of cooling equipment?

Invite a resource person from a local heating and air-conditioning business to describe adequate central heating and air-conditioning systems for various housing situations. Have the speaker explain the basic functions of the systems. Have students ask the speaker questions and write brief summaries of the information learned from the speaker. KEY QUESTIONS: What is the approximate cost of installing and operating the systems? Why is the size of a heating unit or an air conditioner important? What happens when the heating or air conditioning unit is too small? too large? What is the purpose of attic fans? What is a BTU? (British thermal unit, a standard unit for measuring heat gain or loss.)[B] [C]

Lead a class discussion on the heating and cooling requirements of local homes. Have students research to determine the types of fuel or energy available. Lead a class discussion on the advantages and disadvantages of each type of heating or cooling system and fuel/energy source. NOTE: If someone in the community uses

solar energy, try to arrange a visit to the home or invite the individual to speak to the class on the advantages and disadvantages of solar energy for heating homes.

Arrange a field trip to a business that sells household appliances and equipment. Obtain brochures from appliance companies that show the newest features for appliances, or invite a salesperson to speak to the class about the impact of technology on appliance features. Have students prepare questions before the field trip and write summaries after the field trip.[B]

Provide labels and energy guides from various types of household appliances and equipment for students to read. Ask students to list the types of information included on each label. KEY QUESTIONS: Which federal agency controls labeling on appliances? What are some other reliable sources of information about the products?

Have students define the following terms: *seal of approval*, *warranty*, and *guarantee*. Lead a class discussion on the meaning of each of the terms. KEY QUESTIONS: Why are the terms warranty and guarantee often used interchangeably? What are some seals of approval you often see on household equipment? Why should one compare warranties? What are extended warranties?

Ask students to read a warranty for a piece of equipment. Lead a class discussion on the information contained in the warranty and the importance of a system for saving the warranties and instruction books on all appliances for future reference. KEY QUESTIONS: How long does the warranty last? Are all parts of the equipment under warranty for the same length of time? What is the buyer's first obligation in fulfilling the terms of the warranty? What is the importance of understanding all aspects of the warranty? Why should one read and save warranties and instruction booklets after an item is purchased?[B] [C]

For a Student Occupational Activity, have students research the development of several small appliances such as coffee makers, can openers, and mixers. Evaluate the impact technology has had on each product. Have students share their findings with the class.[B] [C]

C. Use and care of appliances

Ask students to read selected references on the use and care of appliances and equipment. Provide use and care manuals or instructions for major appliances and small appliances for students to read. Lead a class discussion to compare and analyze the instructions given. KEY QUESTIONS: Why should the instructional manual be read before operating new major

appliances? Do major appliances or small appliances require the most care? What kind of routine care is recommended for major appliances?[B]

Lead a class discussion on the energy costs of operating most equipment and appliances in the home. Ask students to use Teaching Aid 25, The Cost of Using Appliances, to calculate approximate annual energy costs for equipment and appliances used by their families.[B] [C]

Have students read instruction manuals on the safe use of appliances and equipment. Divide the class into groups and ask each group to prepare a five to ten minute demonstration on the safe use of a selected appliance based on information in the manual. Ask the class to evaluate each demonstration. KEY QUESTIONS: Why should one understand the operation of appliances and equipment before using them? Does a manual help one operate an appliance safely?[B] [C]

Invite a local appliance repair person to speak to the class on the importance of equipment maintenance. Have the speaker include maintenance costs, reliability of repairs, and service call charges. Ask students to prepare questions prior to the speaker's arrival. NOTE: Ask the resource person to include information regarding appliance service jobs, training requirements, and salaries.

TAC 75.83
INTERIOR DESIGN
UNIT V

COMPETENCY:

(s.5) *Concepts and skills related to use of design and space planning in homes and business settings.*

SUB-COMPETENCIES:

(A) *Apply elements and principles of design.*

(B) *Relate user activities to space allocations and arrangement.*

(C) *Identify functions of public, private, and service zones.*

(D) *Explain considerations for placement of furnishings.*

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
V. Design and space planning in home and business settings	
A. Design basics	Provide selected references on design for students to read. Define styles of design such as *structural, natural, abstract, conventional, geometric,* and *decorative.* KEY QUESTIONS: How do people express themselves through design? How do people use homes, automobiles, and clothing to express themselves through design? How do public figures and television personalities express themselves through design? CRITICAL QUESTION: How are principles of fashion design and interior design similar? [B]
	Describe two-dimensional design and three-dimensional design. Show students examples of each type used in housing and business situations. KEY QUESTION: Why do designers use a combination of two-dimensional and three-dimensional designs?
	Have students select an object that illustrates decorative design. KEY QUESTIONS: How does the decorative design affect the object's beauty and function? What are some examples that illustrate that decorative design can enhance or interfere with function?
1. Elements of design	List on the chalkboard the elements of design including line, shape/form, space, texture, color, and mass. Show the class selected photographs of rooms from housing and business settings that illustrate the elements of design. Use the following definitions to lead a class discussion on the elements of design: 1) *Line*: defines the shape of an object or the outline of a shape 2) *Shape/form*: the amount of space an object occupies 3) *Space*: the amount of area available for living

[B] = Basic Skill Reinforcement
[C] = Common Essential Element

4) *Texture:* the surface quality of a material
5) *Color*: a phenomenon of light that creates manufactured moods or moods produced by nature
6) *Mass*: the size of an object compared with its surroundings

Point out ways that the elements of design are illustrated in the photographs. KEY QUESTIONS: How do you like each of the rooms? Why? Do the rooms appear balanced? What types of lines are used? What types of textures were used in the rooms? What shapes were used?

Give students a pretest on the application of the elements of design.[B]

a. Line

Lead a class discussion on the types of lines used in designing interiors including vertical, horizontal, diagonal, and curved lines. Find examples from magazines to show students. Ask students to identify which lines create the following feelings: calmness, dignity, excitement, confusion, femininity, masculinity, action, repose, and movement. Ask each student to find a room in a magazine that illustrates a dominant type of line and share it with the class. KEY QUESTIONS: What types of lines are identified? What is the dominant line? What feelings are produced through the use of this type of line?

Have students identify types of lines that would be appropriate to use in several different business settings. Lead a class discussion about reasons for the uses of different types of lines. KEY QUESTIONS: What type of line would be appropriate in a judge's chambers? What feelings should be created in a pediatrician's waiting room? Which lines would create that feeling? How do you feel in a dentist's office? What types of lines would make someone feel nervous? calm?

Divide the class into four groups. Assign each group one of the following types of lines: vertical, horizontal, curved, and diagonal. Explain to students that lines are created in rooms through use of furnishings, placement of fixtures and accessories on walls, use of wallpaper and paint, length and height of rooms, and other design techniques. Provide each group with a variety of illustrations from magazines, trade journals, and other references. Direct each group to identify illustrations showing the dominant use of their assigned type of line. Allow student volunteers to create a bulletin board called "That's My Line" using the illustrations identified through group work.

b. Shape/Form

Refer to the illustrations used to create the bulletin board about line. Have students identify shapes used in furnishings in the room illustrations on the bulletin board. Lead a class discussion regarding how the shapes affect the overall look of each room.

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	KEY QUESTIONS: What are the dominant shapes? Is there a balance between rectangular and curved shapes? Is there space between the shapes?
	Explain the concept that form is shape and that the form of a structure, a room, or an object should usually be determined by its function. The phrase "form follows function" is a guideline used for good design. Show students a picture of a comfortable chair and explain that the design of the chair allows for its function of providing comfort. Have students identify other examples of furniture items that illustrate good and poor examples of form following function.
c. Space	Select illustrations from magazines, books, or audiovisuals of rooms in businesses and homes that appear spacious. Select other illustrations of rooms that do not appear to be spacious. KEY QUESTIONS: How may the use of few furnishings and accessories create a feeling of space? How may the sizes of furniture and accessories affect the spaciousness of a room? How are proportion and space related?
	Give each student one sheet of black construction paper and one sheet of white construction paper. Direct each student to cut out a shape using the white paper and to glue the shape onto the black construction paper. Let each student decide where to place the white shape. Lead a class discussion on the relationship of black space to the white shape. KEY QUESTIONS: What are the most pleasing space relationships? least pleasing? What can be done to enhance those space relationships that are least pleasing? (Relate this activity to accessories placed on a wall or a table.)
	Have students analyze living spaces they use in a typical day. Direct them to start with the time they wake up in the morning and stop at bedtime. Require students to keep logs of special activities that indicate use of living space. Lead a class discussion regarding living spaces. KEY QUESTIONS: What kind of living space did you use? How do you let others know that some areas are your personal space? Why is it important to learn to share space with others? What kind of living space do you consider the easiest to share? the hardest to share?[B] [C]
	Have students study various room illustrations to focus on housing as an outlet for self-expression. Direct each student to locate a picture of a room from a periodical that best reflects his or her individuality and personality. Have each student place his or her picture on the bulletin board with one hint written below the picture about an interest or an activity she or he enjoys. Lead a class discussion to match the pictures and hints with the names of class members.[B]

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	For a Student Occupational Activity, students may select to rearrange their bedrooms or other rooms in their homes. Have each student take before and after pictures of the room he or she selected or sketch before and after floor plans of the room.
d. Texture	Have students select various textures that might be used in designing rooms. (Wood, paint swatches, fabrics, wallpaper, and carpet samples may be used.) Guide students in arranging samples and mounting them on heavy paper. Make photocopies of the mounted texture samples. Lead a class discussion on use of texture in designing interiors. KEY QUESTIONS: What combinations of textures were pleasing? By comparing the photocopies to original samples, how does color influence texture? Without color, are the same combinations of texture as pleasing as before? Why? How many different textures should be combined? Why? Which textures are used in informal settings? formal settings?
	Explain how texture adds variety and interest to fabrics, coverings, and furnishings. Have students collect various textured fabric samples of the same color. Include samples that are shiny, rough, smooth, dull, firm, light, and heavy. Show examples of the same style of upholstered chair in different colors. KEY QUESTIONS: How do projections of a rough surface tend to cast a shadow in certain light and make some colors appear darker? What effect do rough surfaces have on the apparent height of a ceiling or the perceived distance to a wall? smooth surfaces? Why? Do smooth or rough surfaces reflect more light? What causes the same piece of furniture to look entirely different if upholstered in damask, homespun, or chintz fabrics of the same color? Are all textures compatible? Why?
e. Color	Assess students' knowledge of color by giving a pretest on the color wheel. Lead a class discussion on the color wheel. Use Teaching Aid 26, The Color Wheel, as a basis for the discussion.
	Define *value* and *intensity* for students. Use Teaching Aid 27, Value and Intensity Chart, and have each student make a value and intensity chart for two complementary colors. After students finish the activity, lead a class discussion about how color values and intensity affect design decisions.
	Define *monochromatic, analogous, complementary, split-complementary, double complementary,* and *triad color schemes.* Show Teaching Aid 28, Types of Color Schemes, for examples of color schemes. Illustrate color schemes using directions found on Teaching Aid 29, Creating Color Schemes. To test for further comprehension, give each student three copies of Teaching Aid 30, Illustrating Color Schemes, to illustrate the three color

schemes chosen in the previous activity. Students should paint the colors on the items found in the teaching aid. KEY QUESTIONS: What are the contrasting color schemes? What are some examples? CRITICAL QUESTIONS: Do the different color schemes affect the appearance of the room? If warm colors were used, what is the effect on the room size? What happens when cool colors are used? How can color be used to advantage in decorating? Do colors affect the feeling of temperature in a room? Why?

Arrange for students to tour homes, duplexes, apartments, or offices in the area to see how color can be used to create different effects. Have students use Teaching Aid 31, Home/Apartment Tour Checklist, to record information about each interior toured. After the tour, lead a class discussion and allow students to share information gathered. KEY QUESTIONS: What color or colors were used mostly throughout each home or apartment? What color combinations did you like best? What effect did the colors used have on each room toured?[B]

f. Mass

Take students on a tour of the school. Have students identify dark colored walls and light colored walls in the school. Lead a class discussion on how the value (lightness or darkness) of a hue (color) affects perceived mass. KEY QUESTIONS: Which walls in the school are dark in value? light in value? How does the lightness or darkness of the walls observed on the tour affect the perceived mass (size) of the rooms?

Show the class an audiovisual of selected rooms in homes and businesses that include a variety of furniture and accessories. NOTE: Audiovisuals may include film strips, films, or videotapes of current television shows. Include examples of both good and poor design. Have students evaluate the mass of furniture and accessory items in relation to the overall room shown. KEY QUESTIONS: How does mass affect the overall design of a room? the other furniture and accessory items in a room?

As an enrichment experience, select an available software program that will allow students to apply the elements of design to a room in decorating. Lead a class discussion allowing students to share their work with the class.

2. Principles of design

Review the following principles of design:

1) Proportion/scale: the relationship of parts to each other and to the design as a whole based on the division of space
2) Balance: the arranging of design parts to create a feeling of rest and equilibrium. The two types of balance are formal and informal. Using formal balance (symmetrical), the design is the same on each side of the design center.

With informal balance (asymmetrical), the design is balanced but is different on each side of the design center.

3) Rhythm: the illusion of motion as the eye moves easily from one part of the design to another
4) Emphasis: attention drawn to a certain part of a design
5) Unity/harmony: all parts of the room or interior work together to create a pleasing, whole design

Divide the class into groups. Instruct each group to find pictures of room arrangements in magazines or other periodicals. The pictures should illustrate the principles of design through the use of furnishings, carpets, accessories, fabrics, and wall coverings. Have groups analyze the arrangements and write brief reports about how the principles of design have been applied. Students should also point out where the arrangements need improvements. Have each group elect a leader to present information to the class.[B] [C]

As an enrichment experience, select an available software program that will allow students to apply the principles of design to a room in decorating Lead a class discussion allowing students to share their work with the class.

a. Proportion/Scale

Select audiovisuals or illustrations of rooms, crowded or small, with oversized furniture. Also show examples of well proportioned rooms. Have students point out the uses of proportion in rooms. KEY QUESTIONS: How does the correct use of proportion enhance a room? Why is knowledge and understanding of proportion so important to a person decorating a room?

Have students find examples from magazines of rooms in which the same size scale of fabric was used and other rooms with different size scales of fabric. Lead a class discussion on the atmosphere of the room created by the scale. KEY QUESTIONS: Which room seems more pleasing? Why?

b. Balance

Show examples of interiors that illustrate the two types of balance (symmetrical and asymmetrical). Examples include wall arrangements or furniture arrangements. Give students a wall outline with a table placed in the center of the wall. Have students complete the drawing using line drawings of furniture, pictures, and lamps illustrating types of balance. KEY QUESTIONS: What types of balance were used? Where was the balance used? How does balance contribute to the design of a room? Can more than one type of balance be used to create a pleasing and comfortable feeling?

Have students find examples of balance from photographs in periodicals. Have each student evaluate an illustration in a short

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	essay. Ask students to describe and explain the type of balance used in his or her illustration.[B]
c. Rhythm	Collect fabric swatches or wallpaper samples that illustrate the different types of rhythm (repetition, alternation, progression, and contrast). Mount swatches or samples on heavy paper and label each example. Display the mounted items and lead a class discussion regarding types of rhythm. Have students evaluate the classroom for examples of rhythm. KEY QUESTIONS: What types of rhythm were identified? What impact does rhythm have on the total design of a room? the feeling in the room?
d. Emphasis	Assign students to work in groups to find two examples of the uses of emphasis. One example should illustrate an item or object that would be considered emphasis in a room. The other illustration should show the same type of item, but not used as the emphasis in a room. An example of emphasis is a massive stone fireplace and a small wood burning stove. Lead a class discussion on the impact of emphasis on a room. KEY QUESTION: How is it possible that the same items are not always considered emphasis? Ask each student to select an object from a department store catalog that could be the major emphasis in a room. Write a short essay about a room in which the object would be located. Include a description of the impact of the object on the total room.[B]
e. Unity/Harmony	Divide the class into groups. Assign each group a room of a house or a business. Give each group two illustrations of the type of room assigned them. Groups may be assigned a bedroom, bathroom, living room, kitchen, family room, conference room, or an office. For example, give two illustrations of bathrooms to the group assigned bathroom. Have students list items in the room that contribute to its unity. Have elected group leaders share information with the class in brief oral presentations.[C] Select a picture of a room that has a "country" look and another that has an "eclectic" look. KEY QUESTIONS: How can both rooms achieve unity through design? Which items in the room bring about unity? Have students locate four illustrations of living rooms. Have students answer the following questions about each room: Is the furniture scale appropriate for the room? Do some of the pieces of furniture appear to have the same scale? What types of balance are found in the room? Are there examples of repeated rhythms in the room? What are the areas of emphasis? How was harmony

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	achieved? KEY QUESTIONS: How is good design achieved through applying the elements and principles of design? How have the basic elements and principles of design been combined to create the total look of each room?
B. Space allocations and arrangement	Have students read references to identify the amount of space needed for various home activities. KEY QUESTIONS: What space needs are necessary for one, two, three, and four persons living together in one housing unit? How does the amount and arrangement of space influence the degree of satisfaction a family derives from housing? CRITICAL QUESTION: How can personal satisfaction in housing decisions be achieved when space is overcrowded and there are intrusions on your personal space needs?[B]
	Have students complete Teaching Aid 32, Evaluating Space in a Home. Lead a class discussion on the amount of space individuals require KEY QUESTIONS: What is the minimum amount of space required by an individual? When family members are added, why does the amount of space required by each person decrease? Why do families with members of similar ages require less space than families with members of varying ages?[B]
	Have each student record major activities he or she experiences in a typical day. Lead a class discussion to analyze the spaces involved in carrying out the identified activities. KEY QUESTIONS: Which activities involve the use of private space? shared space? How can people share space efficiently at home? at work? at school?[B]
	Lead a class discussion regarding business settings students have visited. Examples include a dentist's office, a doctor's office, offices of students' parents, a principal's office, and a retail store. Have students identify space requirements for different types of business settings. KEY QUESTIONS: Why do some business settings require more space than others? (Example answers include number of visitors to the office, financial success of the owner, service orientation of the business, equipment space requirements, and characteristics of the target customer.) Does the business suffer if there is not enough space for it to operate? What can be done to acquire more space?
	Lead students to brainstorm for hobbies and leisure activities in which family members may participate. Example activities may include golfing, boating, playing pool, watching television, sewing, cooking, and entertaining. Have a volunteer list ideas on the chalkboard. For each activity listed, have students identify space requirements needed to carry out the activity or to store equipment and supplies.

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Have students list examples of equipment used in business and educational settings. Examples include copy service stores, pet stores, offices using computers, automobile dealer showrooms and offices, kitchens in restaurants, libraries, and offices of architects and interior designers. Lead a class discussion on how equipment required in different businesses and educational settings affects space requirements.[B]
	Analyze areas in living environments such as a kitchen, bathroom, or study area. Determine possible activities that family members would carry out in the area. View Teaching Aid 33, Reach Capability, to show human measurement and capability for reach. KEY QUESTION: How do these measurements affect the planning and utilization of space?
	Have students read selected references to gain understanding of how the amount and arrangement of storage is influenced by the family's composition, needs, living space, interests, and income. KEY QUESTIONS: How does adequate and functional storage help meet family needs and contribute to efficiency in performing houschold activities? Why is it necessary to plan storage areas?[B]
	Lead a class discussion on the storage needs of a college student, a couple in the first stage of the family life cycle, and a family with one child. Predict ways the second family's needs will change with the addition of another child. Predict ways the family's needs will vary according to the sex of the additional child.
	Lead a class discussion on how different types of people might decorate a room. Include people of different age groups and people with different activity interests. KEY QUESTIONS: How do interests affect interior design choices? How do wants affect interior design choices? How do hobbies affect interior design choices?
	Lead students to brainstorm for the advantages and disadvantages of shared space. Have a panel of students who share space lead a class discussion on how they work together to overcome disadvantages.
C. Planning and functions of public, private, and service zones 1. Public	Arrange for students to tour homes or view floor plans to locate zones in different types of housing. Have students identify public zones as entrances, living areas, dining rooms, and family rooms. KEY QUESTIONS: How can one area be used for more than one zone? How does the use of zones vary according to a person's lifestyle or stage in the family life cycle? How can furniture be used to help buffer between zones? CRITICAL QUESTION: What solution to zone-related problems can be used for the following situations:

1) Bedroom facing a busy street
2) Washer and dryer adjacent to bedroom
3) Reading area located near television

Divide the class into five groups. Assign each group one of the areas of the public zones. Have students develop a list of activities/functions of that particular area. Lead a class discussion.[B]

Select floor plans and illustrations of entrances to homes and businesses. Display the illustrations for students and ask students to locate closets or storage areas near entrances. Lead a class discussion about the reasons for entry closets in public zones of homes and businesses. KEY QUESTIONS: Why are closets located near entrances? What types of items should be stored in these closets? Are the storage areas near entrances usually large or small? Why? Is the storage in these closets permanent or temporary? Why? If the closets were not located there, where would items be stored? Are entry closets needed? Why?

Ask volunteers to describe the dining rooms in their homes or the homes of people they have visited, or have students find illustrations of dining rooms from magazines. Have students identify and explain if the identified dining areas are separate rooms or if they are incorporated into the kitchen or living areas. Ask students to name the furniture items in the dining areas and explain functions of the furniture. Lead a class discussion on Teaching Aid 34, Spaces Needed in Dining Rooms and Kitchens, and arrangements of dining room and kitchen space for maximum usage. KEY QUESTIONS: Is the furniture placed so that there is plenty of space to sit at the table and walk around the table? Is it crowded? If so, what can be done to solve this problem? Is there much traffic through the area? What are the advantages and disadvantages of having a separate dining room?

2. Private

Have students identify the private areas in a home. Lead a class discussion on the functions of private areas such as bedrooms, bathrooms, and office and study areas. Have students locate examples of bedrooms that are also offices or studies. Lead a class discussion on the advantages and disadvantages of such situations.

Have students identify important factors needed in private areas of the home. KEY QUESTIONS: Why are the items identified as important? Why may some items be more important to individuals than to others?

Lead a class discussion on the quiet areas in a home such as bedrooms, bathrooms, patios, or study areas. Have students read selected references and make lists of the factors to consider when

planning quiet areas. Include organization, arrangement, equipment, and storage factors on the list. Have students share lists with the class. KEY QUESTIONS: Why is it important for the quiet area to be away from outside noise and street traffic? from the activities of other members of the family?[B] [C]

Arrange for students to tour a house, apartment, or town house. Have students analyze storage space in bathrooms and dressing areas. Lead a class discussion on alternatives to provide additional storage in these areas.

Have students bring to class a picture of a bathroom and/or dressing area. Lead a class discussion on storage space required in bathrooms and dressing areas. Have students identify factors to consider when space is shared. Have a volunteer measure the size of a large bath towel for the class. Have students calculate the storage space needed for items such as the bath towel.[B] [C]

Lead students to brainstorm to identify the storage requirements desired in bedrooms. Lead a class discussion on how storage space requirements vary with the interests of family members. Compare the storage needs of a toddler's room with the needs of a teenager's room.

Have students design a bedroom that meets the needs of a six to twelve year old child. Students should interview a child that they know about the colors they like, where they like to sleep, and their favorite toys. Students should use graph paper, furniture templates, samples of paint, and carpets. Evaluate students' work based on traffic patterns and room arrangements.

Based on elements and principles of design, have students design a bedroom for privacy and sound insulation. Use the dimensions of 18' x 24'. Direct students to place a hallway down one side of the room and a family room on the other side. Have students use graph paper and furniture templates. Floor coverings should be selected that will contribute to sound insulation. Have the class evaluate furniture arrangements for privacy and insulation.

Display illustrations or show audiovisuals of business settings where large rooms are used to house many workers. Lead a class discussion about each example to determine the privacy needs of the workers depending on the types of work they perform. Lead students to brainstorm ways to divide each room to give workers privacy. Examples include cubicles, space, desks, filing cabinets, and traffic flow patterns. KEY QUESTIONS: What is the most effective way to create privacy? Does the lack of privacy affect worker performance? What are some ways to reduce the noise level?

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Arrange to take students on a tour of the school. Show them private offices of the principal, counselor, and others with private offices. Have students identify storage areas and observe the arrangement of each office. After the tour, lead a class discussion about students' observations. KEY QUESTIONS: What kind of storage was identified? Did the offices have enough storage? How did the arrangement of each office allow for privacy? What occupations outside the school require secure private filing systems? (Examples include lawyers and psychiatrists.) What are some ways these systems can be designed?
3. Service	Lead a class discussion on the service zones in the home such as the kitchen, utility room or laundry facilities, sewing room, garage, and home office. KEY QUESTIONS: What are other areas or rooms in a home that could be considered service areas? Why should they be considered service areas? How does effective planning of work areas influence their usefulness? How does an unorganized and poorly planned area affect the efficiency of work in the area?
	Have students read references on planning service areas. Lead a class discussion on factors such as work area organization, arrangement, equipment, and storage.[B]
a. Kitchen	Have students read selected references to identify efficient arrangements for the work center in the kitchen. Define *work triangle* for students. KEY QUESTIONS: What three pieces of equipment are in the work triangle? Why those three pieces of equipment? Why is the work triangle an efficient arrangement for the work centers in the kitchen? Why is it recommended that the three sides of the work triangle measure no more than twenty-two feet?[B]
	Display examples or illustrations of the basic kitchen shapes and the work triangle. Use Teaching Aid 35, Basic Kitchen Shapes, to lead a class discussion. KEY QUESTIONS: Which kitchen shape is usually considered the most efficient arrangement? Why?
	Use Teaching Aid 36, Appropriate Use of Kitchen Storage Space, to help students gain better understanding of planning storage space in kitchen work areas. Lead a class discussion on why items used frequently should be stored in convenient locations, preferably in the area between waist and eye level. KEY QUESTIONS: What should be stored in the dead storage space in high cabinets and in deep corners? Where should items such as holiday pans and dishes, a fondue pot, a wok, or large roasters be stored? What storage factors should one consider when planning a kitchen for a person in a wheelchair or a person walking with crutches or a cane?

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Lead a class discussion on Teaching Aid 37, Kitchen Storage Devices. KEY QUESTIONS: Do kitchen storage devices allow for better use of kitchen space? Why? What types of kitchen storage devices provide better use of cabinet space? Do kitchen storage devices make a kitchen more efficient? Why?
	Have students design an efficiently arranged kitchen using graph paper and properly scaled sizes of equipment. Caution students to use the same scale for the equipment and the kitchen. Try to assign each of the kitchen shapes to students.
	For a Student Occupational Activity, have students redesign a kitchen. Have students measure the kitchen in their homes or provide students with kitchen dimensions. Assign students to transfer dimensions to graph paper, then redesign the kitchen. Include storage space and work triangles for a more in-depth project.
b. Laundry	Have students view Teaching Aid 38, Planning a Laundry Area, to observe factors to consider in planning a laundry area. KEY QUESTIONS: Where may a laundry area be located in a house, apartment, or mobile home? Lead a class discussion on how a cart with multiple shelves can be used to gather soiled laundry from the bathroom, bedrooms, or kitchen. Can the cart be helpful in returning clean laundry? Why?
	Lead a class discussion on the advantages and disadvantages of having a single area for family members to leave soiled laundry or having hampers in bedrooms, bathrooms, and the kitchen for soiled articles. Lead a class discussion on how built-in bins and baskets or boxes on shelves are convenient for sorting laundry into loads. Identify the possible uses of a sink in the laundry area or nearby. Identify the uses of a floor drain in the laundry area or nearby. KEY QUESTIONS: When planning storage space for laundry supplies, how can supplies be stored so that they are within easy reach of the homemaker and out of reach of young children? Why is it important to consider the door styles when planning space for a washer and a dryer? Why should space for hanging garments be planned in the laundry area? Why is space for a table and an ironing board useful in plans for a laundry area? Where else could folding be done? ironing?
	Lead a class discussion on what is to be considered when planning a laundry area for a person in a wheelchair or a person walking with crutches or a cane. Consider size, location in a house, and storage space.
	Have students plan how laundry areas can be expanded to create utility rooms that include space for activities such as folding and

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	ironing laundry. Lead a class discussion on how the needs of family members can be met by expanding utility rooms.
c. Home office	Identify activities of a family that could require the use of a home office. Consider such things as bookkeeping, typing, or computer use. KEY QUESTIONS: How important is the space needed for a home office? How are these activities carried out by your family? What spaces are used if a home office area does not exist in your home?
	Obtain copies of floor plans that show home offices. Lead a class discussion on types of activities that could be completed in these offices. Determine the amount of square footage allocated.[B]
	Lead students to brainstorm for items that could be stored in home offices. Then have students evaluate the storage available in home offices. Lead a class discussion on methods of overcoming storage obstacles in home offices.
	Have students design an office or study area. Give students dimensions for the room with a case study. Use graph paper to design the room.
D. Placement of furnishings	Lead a class discussion about the arrangements of furniture in the rooms on Teaching Aid 39, Analyzing Furniture Arrangements. KEY QUESTIONS: How effective is the furniture arrangement in each room? Is the furniture arranged for conversation? Are the traffic lanes open between doorways? Are windows easily accessible for opening and closing? Are the large pieces of furniture placed to balance each other? Are tables convenient to use? Is the room convenient?
	Have students draw a sketch of a room and arrange furniture using the elements and principles of design. Have students share furniture arrangements with the class.[C]
	Plan a field trip to tour model homes, apartments, or mobile homes. Identify ways that the models have been decorated and furnished to appear larger. KEY QUESTION: How were the elements and principles of design used? NOTE: If a field trip is not available, use magazine pictures or slides to show decorating techniques.
	Refer to Teaching Aid 40, Spaces Needed for Furniture Arrangement, and lead a class discussion on spaces needed for furniture arrangements in various rooms.
1. Architectural features of rooms	Define *architectural features*. Show students examples of architectural features in homes and businesses from magazines,

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	photos, slides, or other illustrations. (Examples include fireplaces, built in desk and bookshelves, and staircases) KEY QUESTIONS: How do these features influence furniture placement? What are some advantages and disadvantages of built-in furniture? What are some examples of built-in furniture in your home?
	Have students create a room in a home or business setting with at least one architectural feature on a piece of paper. Ask students to arrange furniture in the room so that the feature is a point of emphasis. Have students show their creations to the class, identifying the architectural feature and the furniture arrangement.[C]
2. Traffic flow	Have students read selected references regarding guidelines for furniture arrangements. KEY QUESTIONS: How are design and function considerations in arranging furniture? Why should furnishings that are used together be placed together? Why is it important to keep traffic lanes open between doorways? Why is it important to arrange a room so it is easy to clean and safe to live in? Why is it important to have some of the heavy furniture on each side of the room? Why should large pieces of furniture be parallel to walls? Is it important that furniture be arranged so windows are easily accessible for opening, closing, and viewing the outside?[B]
	Show Teaching Aid 41, Traffic Patterns. Lead a class discussion regarding how room arrangement and careful planning can enhance use of rooms. KEY QUESTIONS: How does the arrangement of the furniture control traffic patterns? Why is space needed between furniture? What problems might arise if traffic flow is not well planned? How does arrangement of the rooms in a home affect traffic patterns from room to room? from indoors to outdoors?
	Lead students to brainstorm traffic flow requirements for elderly people, children, and handicapped people. KEY QUESTIONS: What sizes and types of furniture are most appropriate for children? elderly people? handicapped people? How would the individuals using the furniture influence the furniture arrangement? Why is it important for traffic flow patterns to be efficient for children? elderly people? handicapped people? What special arrangements would be needed for visually impaired people?
	Divide the class into groups. Develop checklists of factors to consider when arranging furniture in each room of a home. Using room pictures from magazines and the list students developed, compare the arrangements in the pictures. KEY QUESTIONS: Which rooms met the checklist? Which ones did not meet the checklist? Why?

Make transparencies of Teaching Aid 42, Creating Room Arrangements. Divide the class into groups and assign each group a room of a house. Give each group a transparency and have students arrange furniture using the furniture templates to design functional furniture arrangements using furniture templates. Have students use tape to keep the templates in place. Assign groups to explore possible furniture arrangements for the following situations:

1) A living room that looks out over a lake
2) A conversation center in a den
3) A sleeping and living area in the same room
4) A private reading area in a living room

Have elected group leaders show their arrangements to the class using the overhead projector. Lead a class discussion about each group's furniture arrangement.[C]

Have students create a floor plan of a business office, a waiting room, or a lobby on graph paper. Using furniture templates, have students arrange furniture in the business setting. Remind students to consider the people who will be using the room, and make any special adjustments necessary (such as wheelchairs in a doctor's waiting room). Ask students to present their arrangements to the class, to identify the types of business settings, and to point out the traffic flow patterns. KEY QUESTIONS: How does furniture arrangement define traffic flow patterns? Using the same furniture, how many different arrangements can be designed that have efficient traffic flow? Why is it important to have well-defined traffic flow areas in an office, lobby, or waiting room? [C]

As a Student Occupational Activity, have students design a room in a home, office, waiting room, or lobby of a large office building. Obtain several durable boxes from local businesses. Divide the class into small groups and explain that each group will be responsible for selecting a box and turning it into a scaled miniature of a residence or place of business. Remind each group to use all tools at its disposal: colored paper, glue, markers, tape, and carpet and wallpaper samples. Inform the class that each room must be identified, but furniture is not necessary. Ask students to give oral reports about their designs and give reasons for design choices. Display the finished models in the classroom or a school display case. KEY QUESTIONS: Which rooms are the easiest to design? the most difficult? Why? CRITICAL QUESTION: How does the size of the room dictate color and print size selection?[C]

TAC 75.83
INTERIOR DESIGN
UNIT VI

COMPETENCY: (s.6) *Concepts and skills related to occupant needs.*

SUB-COMPETENCIES:

(A) *Contrast design practices used to meet the occupant needs in homes and business settings.*

(B) *Explain the effect of technology on interior design practices.*

CONCEPTS

VI. Occupant needs
- A. Design practices
  - 1. Working with clients

LEARNING AND EVALUATION EXPERIENCES

Have students research interior design periodicals for information on interviewing clients. Ask students to make lists of information that should be obtained during an interview. Invite an interior designer to lead a class discussion on the interviewing process. Role play mock interviews to determine needs of a residential client and a business client. KEY QUESTION: What are the major differences in the information to be obtained from the two clients?[B]

Lead a class discussion about letters of agreement for contracted services. Review letters of agreement from various interior design companies and lead a class discussion on the content of the letters. Have students practice writing letters of agreement.[B]

Ask students to read selected references about inside-out design. Lead a class discussion about the advantages and disadvantages of designing the inside of a home or business to accommodate interests and needs of the occupants before designing the outside. KEY QUESTIONS: What determines the room size, number of rooms, furniture, and architectural style of a home or business? What are some advantages to inside-out design? disadvantages? Why?[B]

Invite a resource person to speak to the class about presentation boards. Ask the resource person to bring examples of presentation boards to show the class and speak on methods of developing presentation boards. After reviewing samples, give specifications and have each student develop a sample to illustrate his or her ideal bedroom. Have students present their boards to the class in brief oral reports. Display the presentation boards in the classroom.[C]

Have students read selected references about different types of fees and compensation. Also have them investigate payment

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[B] = Basic Skill Reinforcement
[C] = Common Essential Element

schedules and payment plans. Examples include the following:

1) flat-fee basis: fee covers charges for designer's time only
2) flat-fee plus percentage of total costs: client pays a flat fee based on the job's original estimate. If expenditures increase beyond estimate, the designer's fee increases as well.
3) per diem fee: calculated by number of days designer spends on a job (may be converted to an hourly basis).
4) retail base: client's merchandise is billed at list price (70 to 100 percent of manufacturer's price). This is the most profitable method of compensation for designers.
5) cost-plus system: designer is reimbursed for services by marking up materials 20 to 30 percent. This is the designers' least popular method of compensation.

Lead a class discussion about appropriate use of each type of fee. Divide the class into small groups and assign each group a type of fee. Have each group pretend to be a design business and create a design project for an imaginary company. Have students report to class about fees they would get from the client using their assigned type of fees. Each group should estimate prices, costs, time span, and other factors involved in the project.[B] [C]

Invite a designer to class to discuss the role of the subcontractor for specific design contracts. Lead a class discussion on procedures for fulfilling contracts using subcontractors for printing, wallpapering, and/or carpeting. KEY QUESTION: What are the advantages and disadvantages of using subcontractors for construction and installation of various items?

2. Restrictions related to interiors and exteriors

Define *restrictions* and *deed restrictions* (private and commercial). Invite a resource person from a title company to lead a class discussion on restrictions related to interiors and exteriors. KEY QUESTIONS: Why are the restrictions necessary? Who checks to ensure that restrictions are enforced? How do restrictions influence the design process?

Lead a class discussion on ways a deed restriction could limit interior changes to a structure. Examples include an office building that could not be changed to meet needs of occupants, or a residence that could not be changed because of historical significance.

Invite someone from a historical preservation society or the manager of a housing unit where restrictions are mandated to speak to the class. An example is a restriction stating that all apartment windows must have shades. KEY QUESTIONS: What are the purposes of such restrictions? How would these restrictions affect your decision to purchase or rent housing in an area?

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Lead a class discussion regarding restrictions on public housing and government restrictions on private housing. KEY QUESTIONS: How do these restrictions affect designers in their work? How do these restrictions affect home owners?
	Have students research zoning restrictions in the community. Ask students to report to the class about zones and their locations in the community. KEY QUESTIONS: Why do some communities enforce zoning regulations? How do these zones affect the building industry?[C]
3. Special housing needs a. Elderly people	Divide the class into groups. Direct each group to make a list of the special problems elderly people face, including lower incomes, decreased physical strength, and age-related problems. Lead students to brainstorm possible housing and interior design features that could alleviate or solve the problems. Ask group leaders to present problems and solutions to the class.[B] [C]
	Lead a class discussion about current design practices that assist elderly people. Examples include handrails in bathrooms, seats in showers and bathtubs, slip-resistant floors, intercom systems, housing near public transportation, and proper lighting. KEY QUESTIONS: How can interior designers incorporate safety and special features into a room's design without making the home look like a hospital or an institution?
	Have students read selected references about special needs of the elderly to determine the colors and textures easiest for elderly or visually-impaired people to see. Also ask students to determine special lighting needs of elderly and visually-impaired people. Based on the information found, have students design a room for an elderly person's house. Ask students to make a sketch of a room and designate appropriate color schemes and proper lighting. Students should remember to include design features for the elderly discussed in the preceding activity. Ask students to share their designs with the class in brief oral presentations. Display the students' work in the classroom. NOTE: Refer to Unit V, Section A for information about color schemes.[B] [C]
b. Physically handicapped people	Invite a resource person from a rehabilitation center to speak to the class about special needs of people who have become physically handicapped as a result of an illness or an injury. Prepare students for the presentation by helping them develop appropriate questions for the speaker. Ask the resource person to show slides or pictures of special housing features or adaptations that assist physically handicapped people. Examples may include wide doors, electronic doors, handrails in bathrooms, space for wheelchair mobility in the kitchen, bedroom, and bathroom, low cabinets, and shallow sinks.

Give students copies of Teaching Aid 43, Housing Adaptations. Divide the class into groups and have students research the costs of the adaptations. Ask group leaders to report their findings to the class.[C]

Arrange for the class to tour an apartment or housing complex that has housing adaptations for elderly or handicapped people. Ask students to make a list of special features in each apartment or home. KEY QUESTIONS: What adaptations were missing from the apartment or home that should be installed? Is the rent for the apartment or home the same as the rent for regular apartments? Why?[B]

Assign students to develop a floor plan of a kitchen, bathroom, or bedroom for a handicapped person. Students should allow for wheelchair mobility, ramps, and safety features in floor plans. Have students present their designs to the class in brief oral presentations.[C]

Have students research to identify special needs and capabilities of handicapped people and how those needs affect appliance design. Example needs include decreased strength, decreased reach, coordination impairment, use of one hand, lack of hand muscles, vision impairment, and memory loss. Have students list design features on appliances that would assist people with the identified needs.[B]

Arrange for the class to tour a retail store that sells appliances for the handicapped. Ask students to develop a list of the design features created for use by handicapped people.[B]

Secure appliances from a food preparation laboratory for students to view. Lead a class discussion about each item. Ask students to identify each item's usability by a handicapped person. KEY QUESTIONS: What are the features of each appliance that would assist a handicapped person? Which features would cause the appliance to be difficult for a handicapped person to use? How could the appliance be adapted for easier use?

Have students sketch a design of an appliance for a person with a specific handicap. Examples include ovens, washers and dryers, blenders, and mixers. Ask students to present their designs to the class in brief oral presentations. In their presentations, have students give information about the handicapped people and have them explain how their appliances will assist the users.[C]

Invite a resource person to class to speak to students about planning storage areas for physically limited persons. Ask the resource person to give students information about height of

storage, types of doors on storage spaces, and amount of storage required. Prepare students for the presentation by helping them develop appropriate questions for the speaker.

Lead a class discussion on the special design considerations for handicapped people in business settings. Examples include ramps, special equipment, bathroom adaptations, cafeteria adaptations, wide hallways, special elevators, electronic doors, and wide sidewalks. KEY QUESTION: What laws influence the design of malls, retail stores, and office buildings?

Define *accessibility*. Arrange to take the class on a tour of the school to identify special features that make the school accessible to handicapped individuals. Use Teaching Aid 44, Checking a School for Accessibility, as a checklist.[B]

4. Storage needs

Show slides of storage found in various types of homes, apartments, or mobile homes. KEY QUESTIONS: Is the storage space sufficient? Why? What storage alternatives are possible when space is insufficient?

Lead a class discussion regarding different types of storage units available. Arrange to take the class on a field trip to a hardware or department store or have students use catalogs to identify storage units available and costs for each. Describe for students four types of families and have students match storage units to each family's needs. Example families include a family with five children, a family with one child, a single parent with two children, and an elderly couple. KEY QUESTIONS: Do economic factors influence whether or not a family has a storage unit? Why? What types of things can be stored in various storage units? Do larger families need larger storage units? Why do people keep items they no longer use?

Lead students to brainstorm for areas in housing and business settings where storage is needed. Divide the class into groups. Give each group a piece of butcher paper. Have groups list items to be stored in each area. Have group leaders report lists to the class. Lead a class discussion about areas students did not identify.[C]

Use Teaching Aid 45, Principles of Storage, and lead a class discussion about the principles of storage. Ask each student to choose a room of a house to write a report on. Direct students to apply the principles of storage from the teaching aid in describing specific rooms. Students may choose a kitchen, utility room, bathroom and/or dressing area, bedroom (for infant, toddler, teenager, adult, elderly, or handicapped person), living room, family room, den or game room, garden room, sewing room, or

home office. Students can refer to references for additional information.[B]

Divide the class into groups and have them discuss the problems of storing seasonal items found in most households. Use principles of storage, covered in Teaching Aid 45, Principles of Storage, to solve any problems identified. Have group leaders share information with the class.[C]

Have students locate and cut out creative storage ideas from popular magazines. Student volunteers may create a bulletin board with the ideas found.

Have each student identify one item that often causes storage problems for persons with limited storage space. Have students think of a creative storage solution for the item. Ask students to make a sketch of how the item would be stored. An example is hanging a bicycle on a wall. Have each student present their storage problem and solution to the class in a brief oral presentation.[C]

B. Effect of technology on interior design

Lead a class discussion on various computerized systems used for recording inventory, bookkeeping, and billing. Have students identify ways such systems could aid an interior designer who is in business for himself or herself. KEY QUESTIONS: What types of computerized systems are available for assisting with inventory, bookkeeping, and billing? How would the use of such systems aid a business person? Would the advantages gained from purchasing a computerized system be worth the costs? Why?

If computer software is available, introduce students to computer experiences that utilize design or graphics software packages. NOTE: One example is the *Design Your Home* series of software available from Abracadata, P.O. Box 2440, Eugene, Oregon 97402. The software is available for Apple and IBM computers. To locate other software packages, have students research software available. They should search computer magazines, computer supply catalogs, and professional computer associations. Ask students to write letters to software companies requesting catalogs and other information. Have students report their findings to the class.[B] [C]

Invite an architect or a resource person from a software company to lead a class discussion on the use of computer aided design or drafting (CAD). Include a discussion of the cost of the CAD systems and time involved in using CAD systems compared to the hand drafting process. Emphasize skills needed to perform CAD and hand drafting. If possible, have students complete a project using a form of the CAD system. Ask the resource person to

discuss occupational demands in his or her area of expertise. NOTE: If no one is available who is familiar with CAD software programs, write a company to obtain the information. Have students research for the information and report to the class.[B] [C]

Lead a class discussion about new technology available to assist interior designers. An example is the Lumena system from Time Arts, Inc., that enables the designer to take a picture of a room to be designed and scan the images by using a computer and a scanner. The designer can call up the actual picture of the client's room on the monitor to make various changes. Designers can make slides, transparencies, photos, or a video of the proposed designed room to show clients. This technology allows clients to see the actual room colors and design rather than having to visualize from paint and fabric samples. KEY QUESTIONS: How could use of such technology help designers to provide more services? Would this process be faster than traditional methods? CRITICAL QUESTION: Is this design technique considered art?

Have students create a bulletin board titled, "Electronic Interiors," by cutting out pictures from interior design magazines or electronics magazines of new technologies available in home entertainment. Lead a class discussion about the illustrations found. Have students identify problems associated with integrating sophisticated electronic equipment into a room's design. KEY QUESTIONS: How do new home entertainment centers affect the design of the room? How do big screen televisions affect furniture arrangement? How do sliding or folding doors that hide electronic equipment affect the design of the room? Should comfort be sacrificed to gain a sophisticated electronic look? Why?

Have students read selected references about lighting design. Lead a class discussion about lighting design including the introduction of new technology in lighting design. Examples include new coordinated lighting control units that allow the owner to control independent lighting zones with a remote control to create moods, emphasize feature items, and provide multiple lighting levels. Other examples include new display lighting fixtures, track lighting, and cabinet and shelf lighting. Also discuss natural lighting. KEY QUESTIONS: Why is lighting design important? What feelings do different lighting levels produce?[B]

TAC 75.83
INTERIOR DESIGN
UNIT VII

COMPETENCY: (s.7) *Concepts and skills related to acquisition of professional service.*

SUB-COMPETENCIES:

(A) *Identify available design resources.*

(B) *Identify responsibilities of the person providing interior design services.*

(C) *Determine costs and benefits of professional services.*

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
VII. Acquisition of professional services A. Design resources	Lead students to brainstorm to identify the types of design resources available in the community. Have students use the telephone book to locate actual resources and ask volunteers to list the resources on the chalkboard. Assign students to call a licensed interior designer, a nonlicensed interior decorator, a designer affiliated with a furniture store, and a paint store to identify costs of professional services.[B] Lead students to brainstorm ways to locate interior designers. Examples include phone books, advertisements, and referrals. KEY QUESTIONS: Which would be the most reliable way to choose an interior designer? Why? Have students research interior design resources to identify professional interior design organizations such as the American Society of Interior Designers. Have students write to the organizations to obtain information about credentialing.[B] Have students define *interior designer* and *interior decorator*. Lead a class discussion about the differences between skills of the nonlicensed interior decorator and the skills of the interior designers with professional affiliation. KEY QUESTION: What are the advantages and disadvantages of hiring each?
B. Responsibilities of interior design professionals 1. Ethics	Define *ethics*. Have students write an essay about the ethics they perceive designers should maintain. Obtain a copy of a code of ethics for designers from a professional organization. Have students compare the two. Lead a class discussion on the differences the students identify. KEY QUESTION: Of what value is professional ethics?[B]

[B] = Basic Skill Reinforcement
[C] = Common Essential Element

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Lead a class discussion on the importance of designing what the client wants compared to designing what the designer identifies as being needed. Lead students to brainstorm personal qualities (besides design ability) a good designer should possess. Examples include confidence, trustworthiness, loyalty, and communication skills. Have a volunteer list the qualities on the chalkboard. Ask each student to choose and write an essay about one personal quality that would help make him or her a good interior designer.[B]
	Lead a class discussion about ethics and the following situation. Debra's newly established design studio is competing with three other design studios for a job designing the lobby of an attorney's office. Debra knows she cannot complete the work by the deadline, but she needs the job, so she tells the client she can finish the work. Debra gets the job and does not make deadline. KEY QUESTIONS: Were Debra's actions ethical? Why? What should she have done? What effect will this have on her reputation as a designer? Is Debra establishing a good foundation on which to start her business?
	The NOW Interior Design Studio is designing Martha and John Smith's new home. Martha has chosen a beige sofa for her living room. The NOW Interior Design Studio is arranging to have the sofa delivered to the Smith's home. Martha paid NOW to treat the sofa with Scotchgard® before having it delivered. NOW forgot to have the sofa treated, but charged the Smiths for it anyway. Lead students to brainstorm a list of things NOW did wrong. Have students identify their unethical behaviors and their careless behaviors. KEY QUESTIONS: Will Martha discover that her sofa wasn't treated? Will she recommend the NOW design studio to her friends? CRITICAL QUESTIONS: In the long term, will the few dollars NOW makes from unethical behavior pay off? Why? How can unethical behavior hinder a design studio?
	Kary's Design Studio is designing Mrs. Wimble's new home in the country where she plans to retire. Mrs. Wimble chose Pale Blue paint for the bedroom walls. When Kary went to order the paint, he noticed that Barely Blue was on sale for half the price of Pale Blue, and the color was only slightly different. He told Mrs. Wimble about the sale and she decided to have him order Barely Blue instead of Pale Blue. By telling Mrs. Wimble about the sale, Kary helped his client save money on the interior design of her home. Lead a class discussion about Kary's ethics. KEY QUESTIONS: Was Kary's behavior ethical? Why? Do you think Mrs. Wimble will recommend Kary to her friends? Will ethical business practices help Kary's Design Studio become a success? Why? CRITICAL QUESTION: What can designers do to earn their customers' trust?

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
2. Public safety	Invite an interior designer or a resource person to speak to the class about the designer's responsibility of safety. Prepare students for the visit by helping them develop appropriate questions for the speaker. KEY QUESTIONS: Why are designers obligated to provide public safety in a home? How do designers predict possible problems of home safety? How do they solve the problems? Does it cost more to provide safety features and precautions? If so, is it worth it? CRITICAL QUESTION: Can designers plan for every possible safety hazard in a home? Lead students to brainstorm ways designers are responsible for public safety. Examples include the following: 1) Selecting floor coverings appropriate for consumer safety 2) Selecting appropriate window types for various weather conditions 3) Selecting appropriate fabrics for furniture and drapes that meet standard flame retardant rules Lead a class discussion on the designer's obligation for public safety. KEY QUESTION: What are ways the designer can ensure public safety?
C. Professional design services 1. Cost	Invite a designer to share with the class various methods of determining fees for services (hourly rate, retail sales, and rate plus markup). Prepare students for the speaker by helping them develop appropriate questions. KEY QUESTION: Are business and residential clients charged the same type of fees? Invite a resource person to speak to the class and explain the monetary impact of buying at a home furnishings market compared to buying local materials. KEY QUESTIONS: What restrictions, if any, are placed on designers who attend markets? Who can attend? Of what value is the market to designers? Lead students to brainstorm lists of factors that would influence the cost of professional design services. Examples include location, designer, styles of furnishings, and extravagance. KEY QUESTIONS: Why do some designers charge more for the same service? In what situations would a good interior designer be a good investment? Why?
2. Benefits	Lead a class discussion on the benefits of using a professional designer as compared to someone with little or no experience in design. KEY QUESTIONS: Which would provide more reliable service? Which would save you time in the long term? Which would prevent you from making unnecessary purchases? Invite a panel of interior designers (one in private practice, one from a retail establishment, and one who is a nonlicensed

professional) to lead a class discussion on cost and services of design. KEY QUESTIONS: Which designer charges the most for the same service? Why? Is it worth paying more? Why? Which designer would you trust?

As an additional activity, have students write a brief report stating which designer, of the ones in the panel discussion, they would choose to design their homes. Have students give reasons for their choices.[B]

TAC 75.83
INTERIOR DESIGN
CAREER OPTIONS AND ADJUSTMENTS

COMPETENCY:

(a.7) *Concepts and skills related to career options and adjustments.*

SUB-COMPETENCIES:

(A) *Relate personal characteristics to the appropriate careers addressed within each home economics course.*

(a.2 A) *Identify employment opportunities and preparation requirements in chosen field.*

(B) *Describe management practices facilitating individuals assuming multiple roles.*

(C) *Discuss demands and rewards in relation to personal and family life.*

(D) *Demonstrate effective money management.*

CONCEPTS

Career options and adjustments
- A. Personal characteristics needed for interior design careers
  - a.2.A. Employment opportunities and preparation requirements

LEARNING AND EVALUATION EXPERIENCES

NOTE: In situations when both Housing, Design, and Furnishings and Interior Design courses are offered on a campus and taken by the same students, it is recommended that the Career Options and Adjustments unit in the Housing, Design, and Furnishings course focus more on careers related to housing design, selection, and utilization. The Interior Design course would focus more on careers related to space planning and interior treatments for businesses and homes.

Lead a class discussion on interior design careers. Use Teaching Aid 46, Interior Design Careers, for examples.[C]

Have students read references on terms and concepts related to housing and interior design careers. See Teaching Aid 47, Career Terms and Concepts, for a list of terms.[B] [C]

Display Teaching Aid 48, Conduct on the Job, and lead a class discussion about acceptable behavior on the job. KEY QUESTIONS: What behaviors are unacceptable on the job? What characteristics should a person in a housing or an interior design career have? Why? What kind of conduct would be unacceptable for a person to display on the job as an interior designer? What are the consequences of poor conduct on the job? Are these

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[B] = Basic Skill Reinforcement

[C] = Common Essential Element

consequences fair? Why? CRITICAL QUESTIONS: Do all careers require the same conduct on the job? Why?[C]

Show students Teaching Aid 49, Attitudes for Success, to identify attitudes that can help or hinder job success. KEY QUESTIONS: Why are certain attitudes important for success on the job? How can negative attitudes hurt one's chances for job success? What attitudes should people in interior design careers have? Why?[C]

Divide the class into groups. Have each group choose one good attitude and one poor attitude from the attitudes discussed in the previous activity. Have each group role play two situations exhibiting ways good or poor attitudes can help or hinder success.[C]

Instruct students to locate classified advertisements concerning employment opportunities in occupations related to home furnishings. Have students share the job descriptions with the class. Teaching Aid 50, Job Announcements, contains additional job announcements for students to view. Give students two copies of Teaching Aid 51, Job Profile. Have students complete job profiles for two positions they located. Enlist volunteers to share job profiles of positions they would like to have someday.[B] [C]

Have students look in the yellow pages or the business pages of local phone books to determine the number of housing related businesses in the community. KEY QUESTIONS: What type of businesses are abundant? What type of businesses are needed? Which business might be located in the home?[B] [C]

Assign students to investigate an entry-level job related to housing and interior design. Have students compile reports that include information about educational requirements, skill requirements, and job prospects. Ask students to share their information with the class in brief oral reports.[B] [C]

Invite a panel of people in careers related to housing and interior design to class. Have panel members tell students how they began their careers and how they acquired the skills they now possess.[C]

Assign students to review college catalogs to find the courses that are required for an interior design or home economics degree. KEY QUESTION: What high school courses would benefit a person who is planning to major in interior design or home economics in college?[B] [C]

Assign articles or books for students to read about communication skills or interpersonal skills that can be helpful to career

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	advancement. Have students share their information with the class by giving brief oral reports. KEY QUESTION: Why can communication skills help a person in a housing or interior design career advance?[B] [C]
B. Management skills for multiple roles	Invite a resource person from an interior design field to speak about aspects of employee and employer expectations about managing job and personal roles and responsibilities. Guide students to prepare questions for the resource person about managing personal roles and responsibilities, handling job demands, and manipulating time schedules. KEY QUESTIONS: What kinds of management practices would an interior design employee need to develop to be able to fulfill multiple roles? How would a career in interior design affect a person and his or her family's lifestyle?[C]
	Invite a panel of parents with careers in interior design or related fields to speak to the class. Have each panel member relate to students a personal technique for managing multiple roles. Guide students to develop appropriate questions prior to the speakers' arrivals.[C]
	Have students read books or articles about time management. Instruct students to complete a daily time chart for a week to indicate how they spent their time. KEY QUESTIONS: Are there periods of wasted time on the charts? Were there times when two tasks could have been completed instead of only one? Is the chart a good indication of time priorities? How can time management be utilized to manage energy, responsibilities, and desires more efficiently? How would time management techniques help people with multiple roles? people on the job in interior design careers?[B] [C]
C. Demands and rewards	Have students interview a person employed in an interior design career. KEY QUESTIONS: What are the responsibilities of the person? What are the advantages and disadvantages of the career? What kind of education and work experience does the person have?[C]
	Lead a class discussion about the demands of time, energy, and commitment to an interior design career. KEY QUESTIONS: Do interior design careers require overtime and weekend work? Why is it important to enjoy a career? CRITICAL QUESTION: What does professional commitment and loyalty to a job entail?[C]
	Lead a class discussion about how a job in interior design might affect family life. Invite a professional in the design field to share examples. Prepare students for the tour by helping them develop relevant questions for the speaker.

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
	Use the phone book or contact the local Chamber of Commerce to determine a business that an entrepreneur might consider starting. Plan the products the business would sell. Then plan the logo, location, and investment.[B] [C]
	Use resources in the library or tour a business to prepare a report on the equipment, facilities, and other needs of the business. Have students compare costs of new and used equipment. KEY QUESTIONS: What equipment is essential? What equipment is nice to have? What types of equipment are available?[B] [C]
	Invite a panel of entrepreneurs in interior design careers to lead a class discussion about the importance of planning equipment and supplies, storage, work, and sales areas. Include as a panel member an entrepreneur who operates a business from the home. KEY QUESTIONS: How do the viewpoints vary from panel member to panel member? Lead a class discussion on how equipment and space needs will vary from business to business. How are efficiency and well-planned space related? How can a good store layout eliminate wasted movement and time? What are the advantages and disadvantages of operating a home business? How does city zoning affect the entrepreneur with a business operating from a home?[C]
	Assign students to write paragraphs describing how their parents' careers have influenced their present housing. Have students include information about their parents' first homes and current homes. Have students include their future housing expectations. KEY QUESTION: How does your current career choice influence your choice of housing?[B]
	Lead students to brainstorm and identify the ways career choices affect housing choices. Lead a class discussion on the positive and negative limitations career choices place on housing choices. KEY QUESTION: How might frequent career moves affect one's housing choices?
	Invite a panel of interior design professionals to lead a class discussion on quality of life, personal satisfaction, financial rewards, social recognition, and the personal and professional contacts made by being in the design field. KEY QUESTIONS: How do designers define *quality of life*? What were some areas of personal satisfaction that were discussed? How does social recognition affect the volume of business?[C]
D. Money management	Have students determine an average salary for entry-level, mid-management, and management positions in careers related to interior design. After determining the average salaries, have students work in groups to develop profiles of different sizes of

families and develop a budget at each salary level for a family. KEY QUESTIONS: How adequate is the income for the family described? Will it be adequate for a single-income family? Would the income be adequate for a permanent situation or a strictly transitional situation? What basic standard of living could a family expect?[B] [C]

Lead a class discussion about budgeting and other methods of reducing costs involved in employment. Examples include the following:

1) Use public transportation rather than own a personal vehicle or pay for parking at work
2) Work at a company that provides uniforms
3) Work at a company that provides discounts
4) Work at a location close to home
5) Work for an employer that provides child care

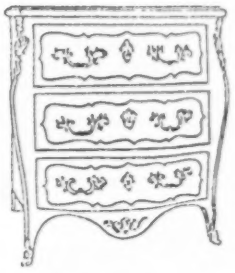
KEY QUESTIONS: How do these techniques relate to the quote "A penny saved is a penny earned?" How could one's net earnings in effect be increased by good budgeting and money management?[C]

Invite a company personnel manager, utilize a company's employee orientation materials, or have students study selected references to determine types, definition, and characteristics of employee *financial incentives*. Include bonuses, stock options, savings and profit sharing, promotions, retirement and pension plans, and credit unions. Divide the class into groups to play "Password," giving one-word clues describing the specific financial incentives. Reward points based upon the number of clues necessary to determine the incentive being described. KEY QUESTIONS: How would each of the incentives affect a family's income? a family's budget? How can each incentive help provide for retirement years? children's education? leisure activities? housing? Which incentives could be provided by small companies? by large companies?[B] [C]

TEACHING AID SECTION

French Styles of Furniture

Rococo

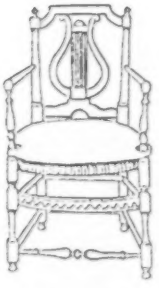


Commode

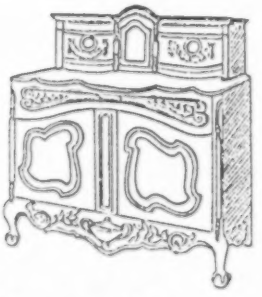
Cabriole Leg

French Provincial

Louis XVI Chair Leg



Arm Chair



Commode

Neoclassic

Louis XV Buffet

Louis XIV Chair

Chair Leg

English Styles of Furniture

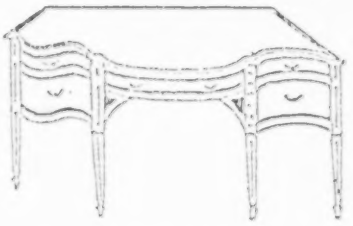
Queen Anne

Drop-leaf
Dining Table

Ball and Claw Cabriole
Leg with Shell Motif

Georgian

Pediment

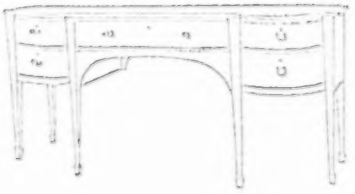


Sideboard

Georgian

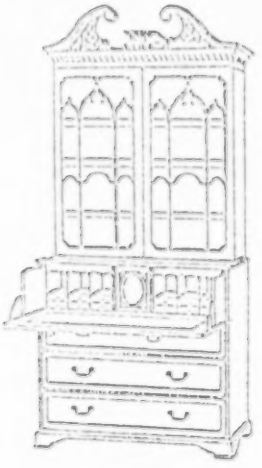
Sheraton Pediment

Georgian



Hepplewhite Sideboard

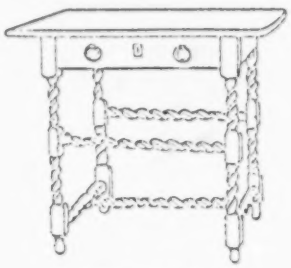
Georgian



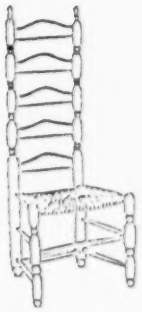
Chippendale Secretary

American Styles of Furniture

Early American

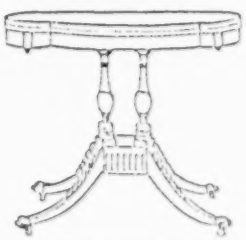


1650 Table



1740 Chair

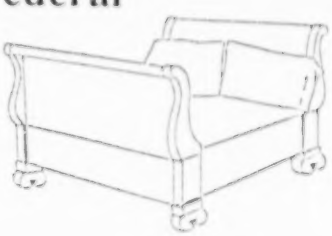
Duncan Phyfe



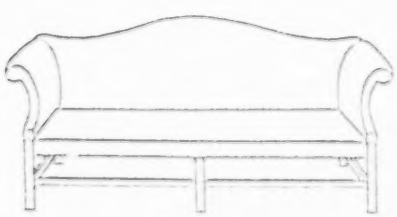
Console

Cornucopia-Leg Sofa

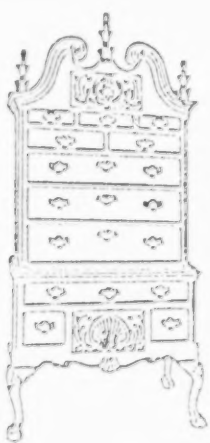
Late Colonial/Early Federal



Sleigh Bed



Sofa



Philadelphia Highboy

Contemporary Styles of Furniture

Bentwood Rocking Chair

Barcelona Chair

Eames Chair

van der Rohe
Steel Tube Chair

Parson's Table

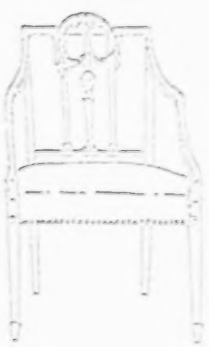
Historical Comparison of Chairs

Queen Anne

Tudor
Windsor

Georgian
Hepplewhite

Georgian
Chippendale



Georgian
Sheraton

Federal
Duncan Phyfe

Victorian

Bentwood
Vienna Cafe

Eames

Wegner

Saarinen

Breuer

Selecting Upholstery Fabrics

Some upholstery fabrics and furniture materials are better choices than others for particular needs. Three common needs and two alternatives for each need are listed in the form below. In the spaces provided at the right, complete the form by writing the better alternative for each need and the reason for your recommendation.

Need	Alternatives	Better Alternative and Reason for Recommendation
1. Upholstery fabric that will be stain resistant	Cotton or olefin	
2. Upholstery fabric for dining chairs where stains are a problem	Rayon or acrylic	
3. Upholstery fabric that will stand up to abrasion in a lake cottage	Acetate or nylon	

Basic Home Furnishings

Living Areas

- Sofa
- Occasional chairs
- Tables
  - small tables
  - dining table with chairs
- Television/radio/stereo
- Desk or study table
- Lamps
- Accessories
- Draperies, rugs

Bedrooms

- Bed springs, mattress, pillows
- Linens
  - bedspread
  - sheets/pillow cases
  - mattress covers/pads
- Dresser/chest/mirror
- Chair
- Lamps
- Desk or study table
- Accessories
- Draperies, rugs

Closets

- Hangers
- Garment bags
- Storage boxes
- Shoe stand

Cleaning/Maintenance

- Sewing machine
- Iron, ironing board
- Vacuum cleaner
- Small cleaning equipment
  - mop
  - broom
  - container for water
  - sponges
- Clocks
- Light bulbs/extension cords/water hose
- Small tools
  - screwdriver
  - hammer
  - pliers
- Ladder

Kitchen

- Table appointments
  - dinnerware
  - glassware
  - flatware/holloware
  - trays
- Utensils
  - saucepans (two small, one large)
  - skillets
  - roaster
  - cake pans/cookie sheets
  - measuring cups/spoons
  - mixing bowls—set
  - cutting board
  - knives/carving set
  - strainer/colander
  - grater
  - juicer
  - pitcher
  - funnel
  - spatula/long fork/scraper
  - can opener
  - rolling pin
- Appliances
  - coffee maker
  - toaster
  - mixer
  - frypan
- Linens
  - dish towels/potholders
  - place mats/napkins
  - tablecloths

Outdoor

- Maintenance
  - lawn mower
  - edger
  - rake
- Entertainment
  - furniture
  - grill
  - cooking/serving utensils
- Sanitation/safety
  - garbage pail
  - lighting system

Case Study on Furniture Selection

Ana recently graduated from high school. She has found a small apartment that has 700 square feet. The apartment has a living room and a small kitchen/dining area with no room in the kitchen area for furniture. Ana has no furniture. With money saved from graduation gifts, she has $2,000 to buy furnishings. Ana plans to save $1,000 this year to purchase furnishings.

- Considering Ana's situation, select furnishings she could purchase this year. Be sure not to exceed the $1,000.

- With the remaining $1,000, select furnishings Ana may purchase next year.

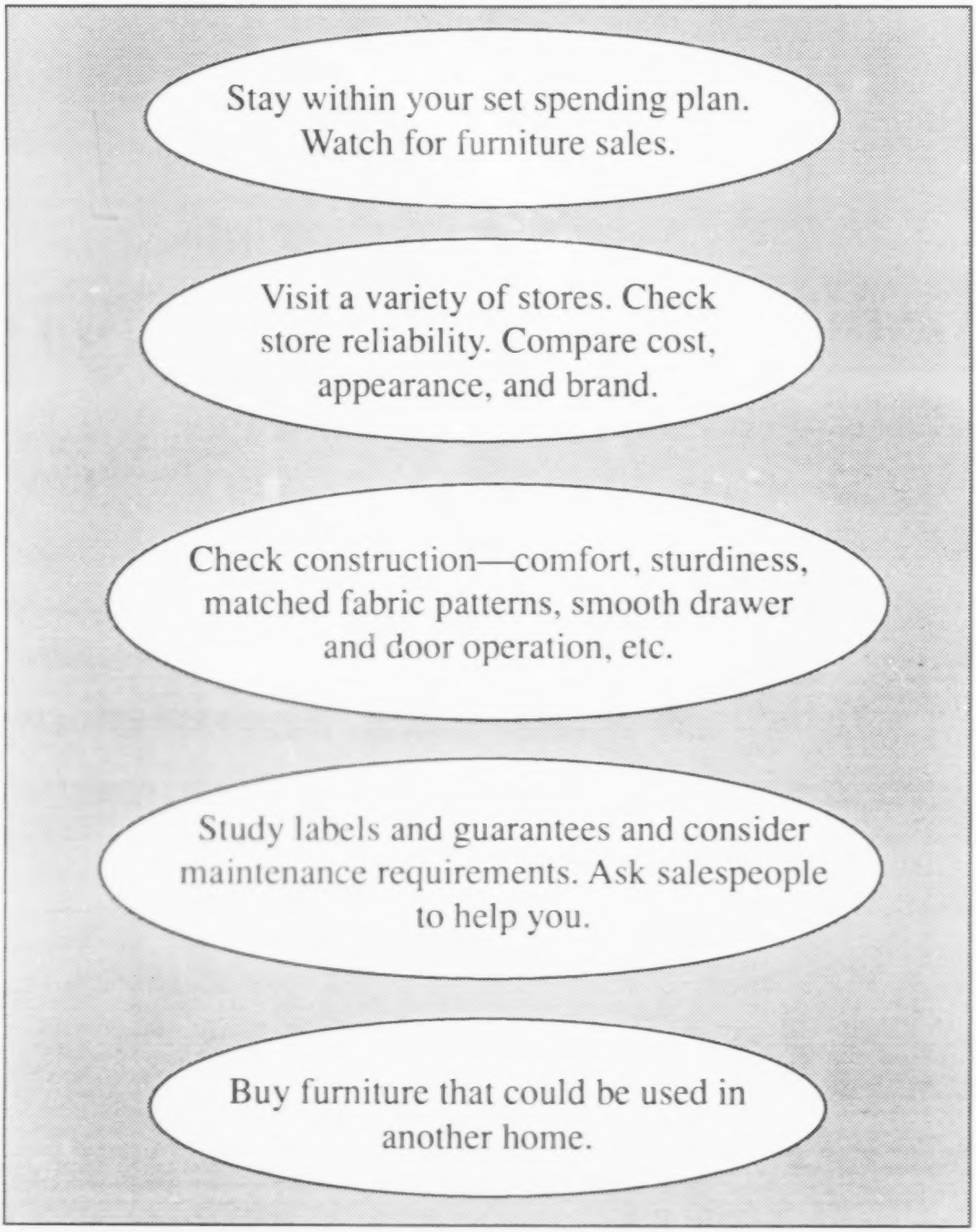
Buying Furniture Case Studies

Directions: Select one of the situations listed below and develop an immediate and a long-term furniture shopping plan for the described individual(s).

- Two friends moving into an unfurnished apartment and away from home for the first time
- A young married couple who has just bought a two-bedroom home
- A single male about to be married
- A married couple, expecting their first child, moving into a three-bedroom rental house
- A parent, recently divorced, who lives in an unfurnished two-bedroom town house with his or her two teenage boys
- An elderly couple who sold their large home and some of its furnishings and moved to a small apartment in a retirement village
- An adult living alone in a two-bedroom apartment

Immediate Plan	Long-Term Plan

Furniture Buying Guidelines


Stay within your set spending plan. Watch for furniture sales.
Visit a variety of stores. Check store reliability. Compare cost, appearance, and brand.
Check construction—comfort, sturdiness, matched fabric patterns, smooth drawer and door operation, etc.
Study labels and guarantees and consider maintenance requirements. Ask salespeople to help you.
Buy furniture that could be used in another home.

Buying Furniture—Methods of Payment

Type	Amount	APR*	Monthly Payments	Years to Repay	Total Interest Charge
Cash	$500	0	0	All due at time of purchase	0
Installment Loan	$500	23.5%	$26.31	2	$131.45
Add to Your Home Loan	$500	10.5%	$4.57	30	$1,154.64

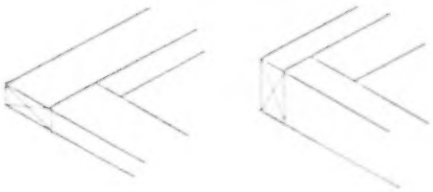
* Annual Percentage Rate: Lenders are required by law (Truth in Lending Act) to give this information.

What are the advantages and disadvantages of each method of payment? Consider resources available, values, and the "life expectancy" of the furniture.

Give one example of a time when buying with credit would be a wise economic decision.

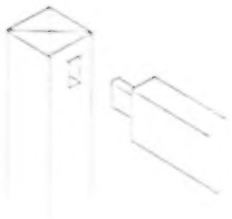
When is it wiser to wait and save to pay cash?

Types of Construction Joints



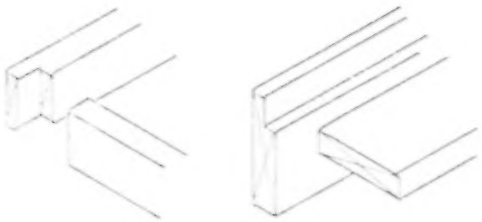
Flat Butt **Edge Butt**

- weak joints



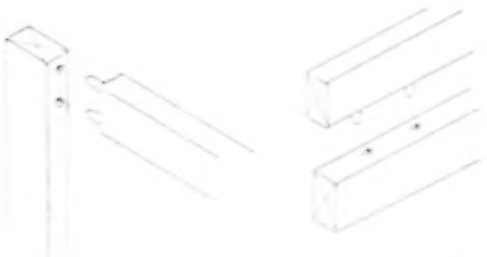
Mortise-and-Tenon

- a very strong joint



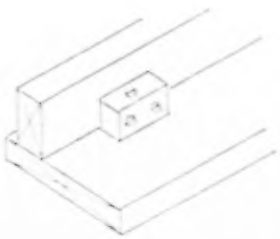
Rabbet

- relatively weak joints



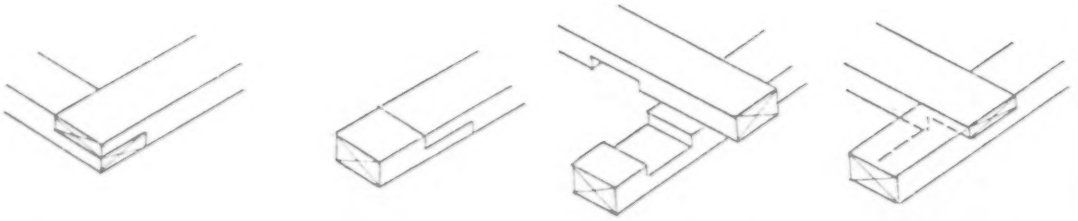
Dowel

- improve strength of other joints



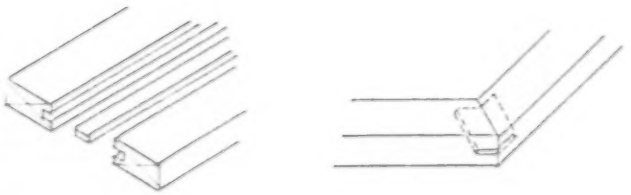
Blocking

- used to enforce other joints



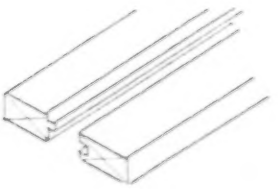
End-Lap **Half-Lap** **Cross-Lap** **Middle-Lap**

- used for frames and crossed exterior pieces



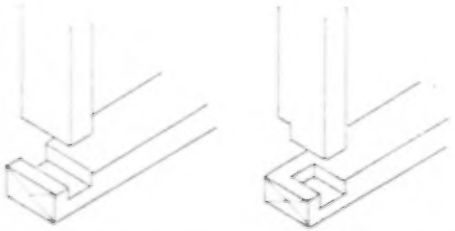
Edge Spline **Corner Spline**

- used to increase strength of other joints



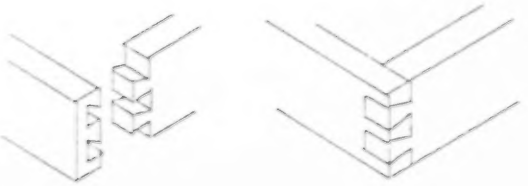
Tongue and Groove

- used along the common edge of two boards



Dado **Blind Dado**

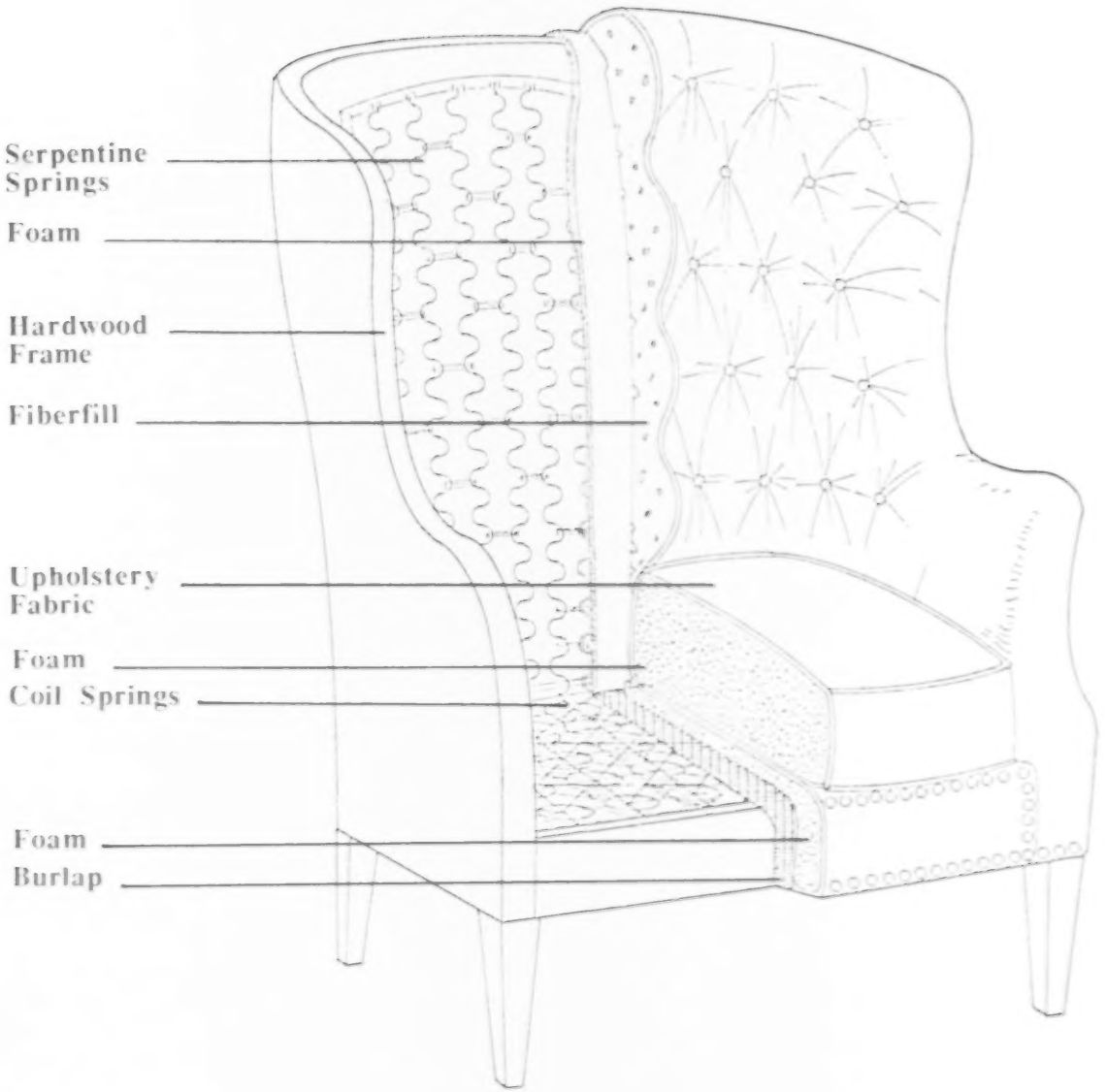
- strong when fitted and glued



Half-Blind Dovetail **Through Dovetail**

- provide maximum strength

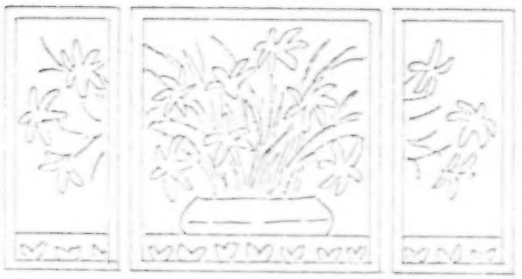
Construction of an Upholstered Chair

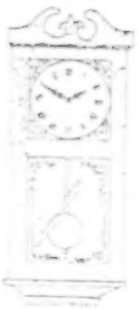


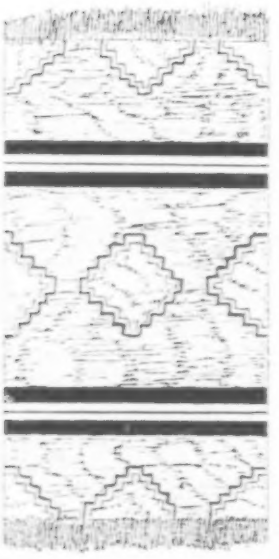
Furniture Repair

Blemish	What to Use	Steps in Repairing
Scratch	Nutmeat Linseed oil	1. Break a nut (such as a pecan, English or black walnut, Brazil or butternut) in half: rub it diagonally over the scratch until the scratch darkens. 2. a. Pour boiled linseed oil on a 3/0 steel wool pad: rub the treated pad over the scratch with the wood grain, applying pressure as you rub. b. Wipe the entire surface with a cloth slightly moistened with oil. c. Wipe the surface again with a dry cloth. 3. Rewax the furniture.
Perfume or Alcohol spot	Camphorated oil	1. Wipe off the spilled liquid. 2. Wash the spot with mild soapy water. 3. Rinse and dry the surface. 4. Moisten a cloth in camphorated oil. Rub the spot lightly. 5. Wipe off the excess oil. 6. Wax the surface.
Burn	Naptha Fine steel wool (3/0) Sandpaper (6/0) Nutmeat Linseed oil Fresh iodine (for brown color) Stick shellac Spatula or knife	1. Scrape the burned area with a sharp knife. 2. Remove dust and scrapings. 3. Dip a cotton swab in naptha and clean the burned area. 4. Wrap steel wool around a small pointed stick. Go over the burned area only. 5. Clean the area. 6. Rub area again with sandpaper. 7. Apply a stain to color the wood. Allow the stain to dry. 8. Heat a knife in a smokeless flame. With hot knife srape the shellac from the stick to fill the burned area. Smooth the area down with the edge of the knife. 9. Sand the treated area carefully. 10. Buff the surface to restore the original shine.
Bloom (grayish color)	Warm water Vinegar	1. Wet a soft cloth with warm water and vinegar mixture (1 pint of water with 1 1/2 teaspoons vinegar). Squeeze out the excess water. 2. Rub the dampened cloth over the furniture surfaces. 3. Dry the surface with a soft cloth.
White spots or rings (left by hot dishes, water, or alcohol)	Ashes Steel wool (3/0) Lightweight oil Table salt Household ammonia	1. Use the simplest remedies first, then try more drastic means if necessary. 2. a. Dust ashes over the spot or ring. b. Dip a 3/0 steel wool pad or cloth into a lightweight oil. Then rub the area lightly with the grain of the wood. c. Apply oil lightly to the entire surface to prevent spotting. 3. a. Dip your finger into lightweight oil and then into common table salt. b. Rub the spot with the mixture. (You may need to do quite a bit of rubbing.) 4. This method is especially good for a varnished surface. a. Dip a cloth in clear water, wring the cloth out, and then moisten the cloth with a very small amount of household ammonia. b. Rub the spot with the cloth.

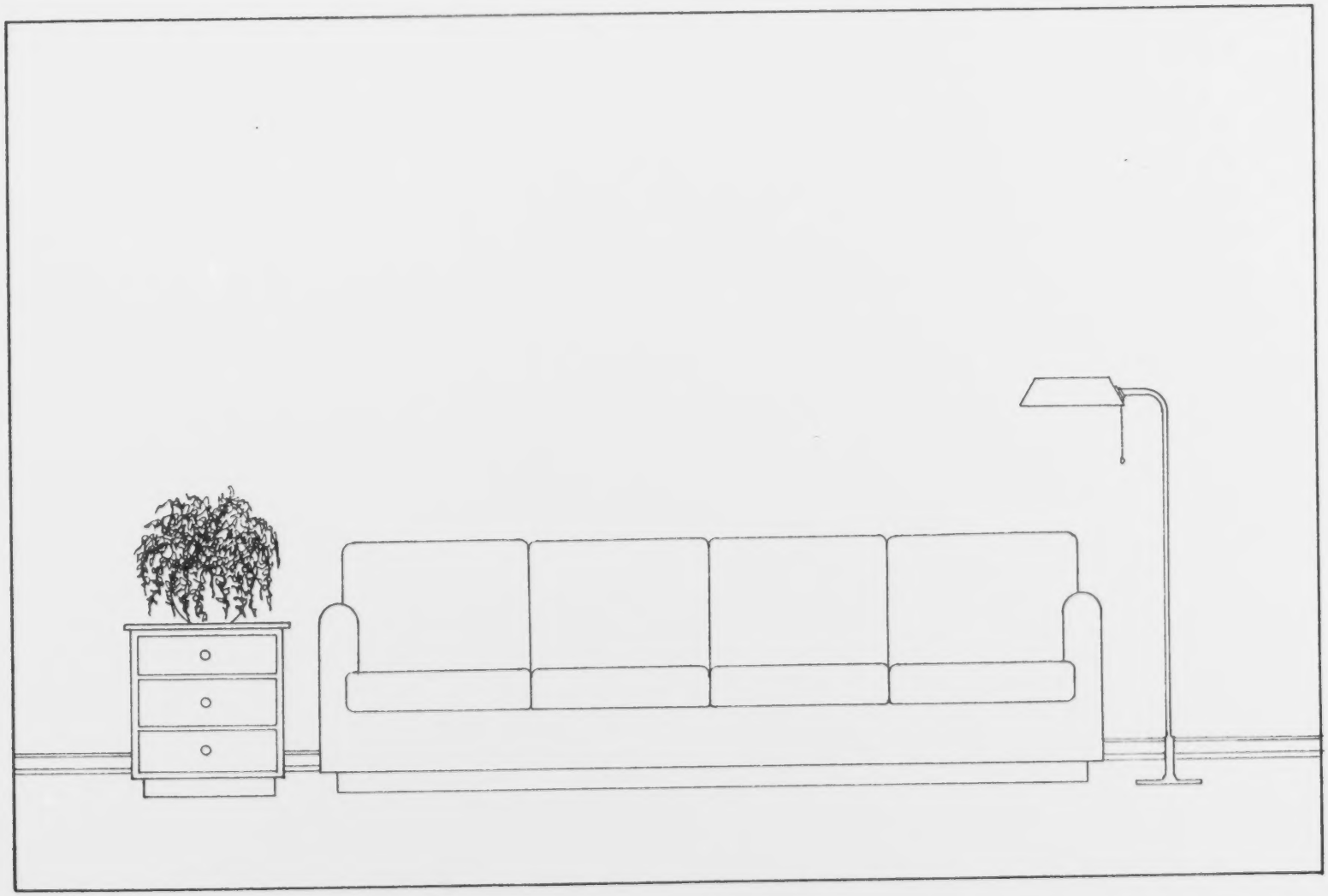
Wall Arrangements: Accessories





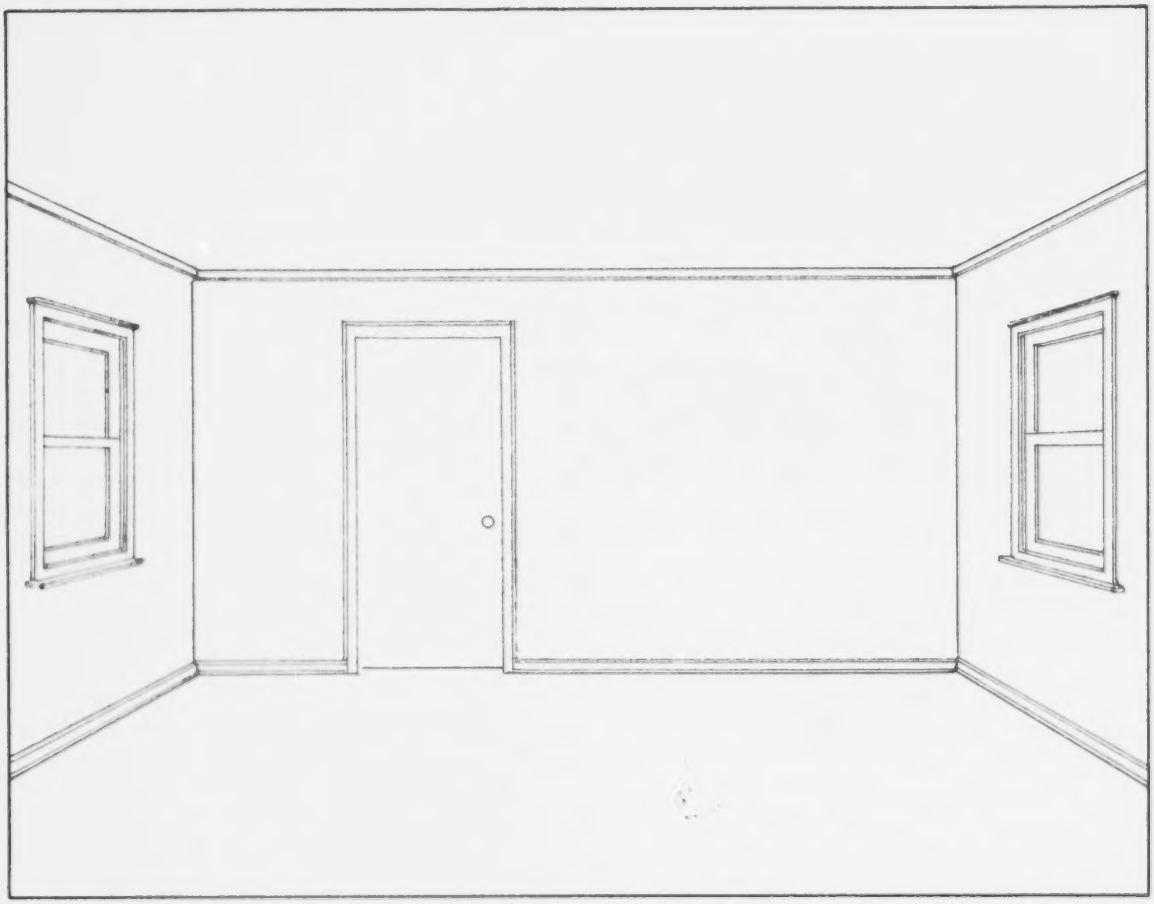


Wall Arrangements: Diagram

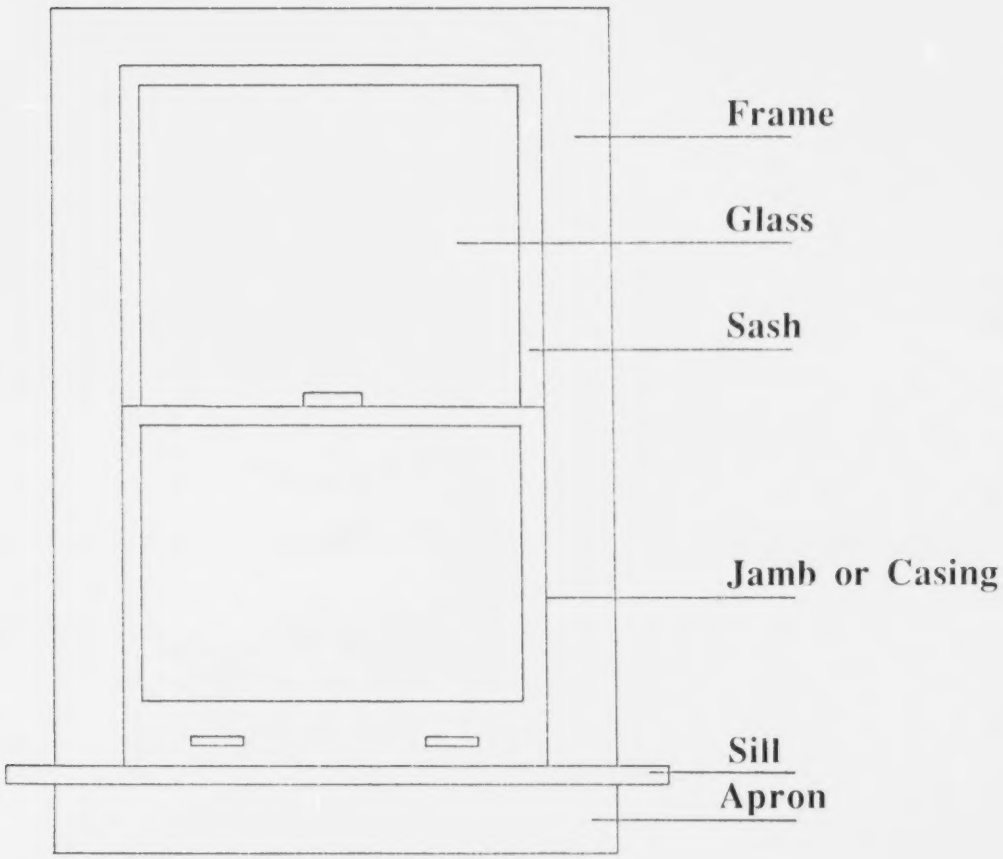


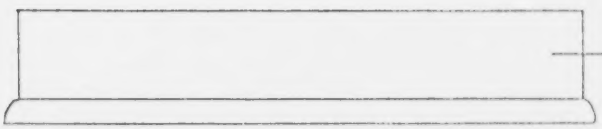
TA 12b

Relationship of Floors, Walls, and Ceilings

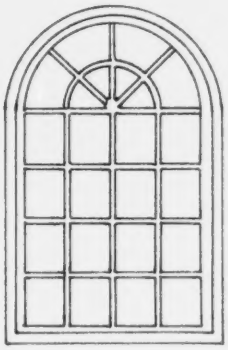


Parts of a Window

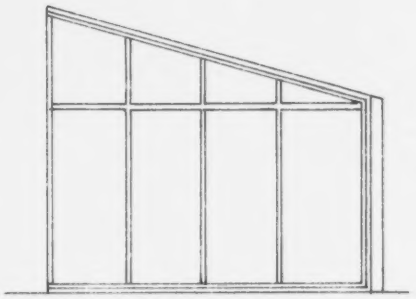




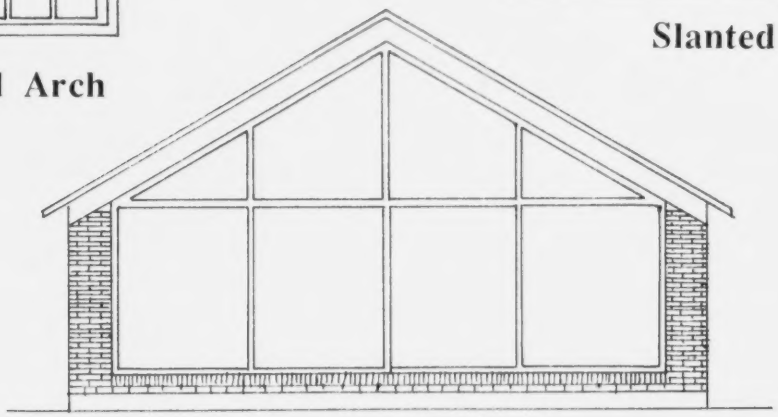
Types of Windows



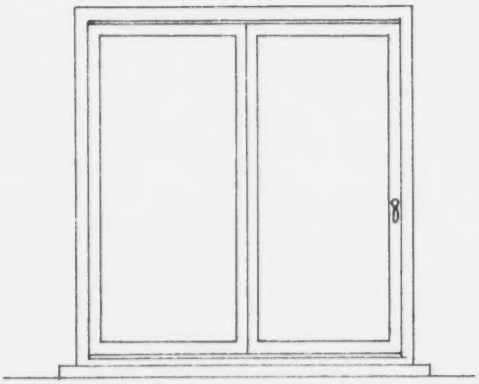
Fixed Arch



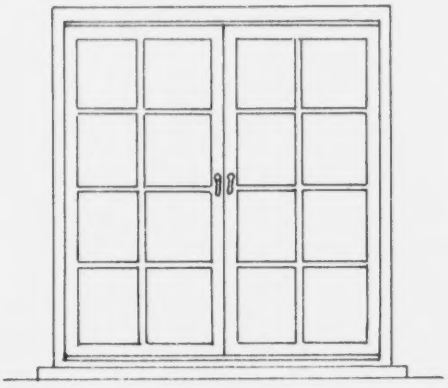
Slanted



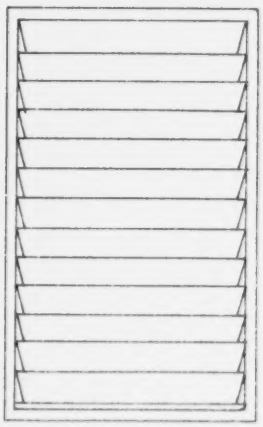
Cathedral



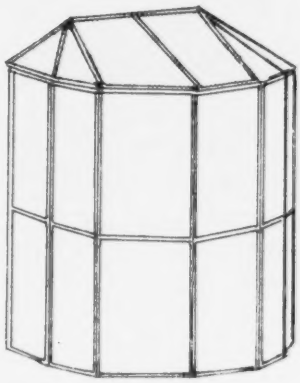
Sliding Door



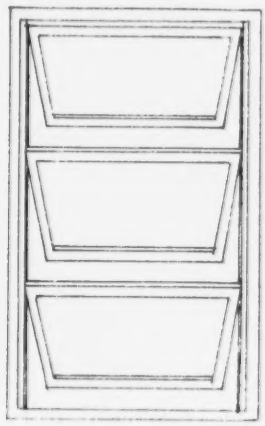
French Door



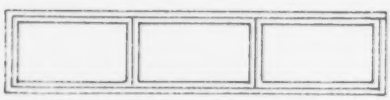
Jalousie



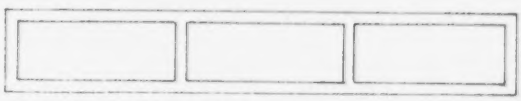
Bow



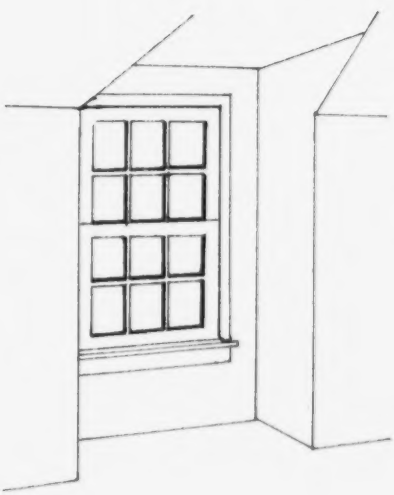
Awning



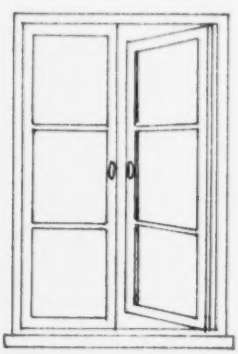
Ranch



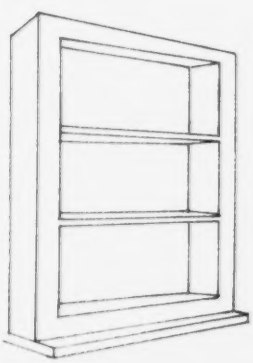
Clerestory



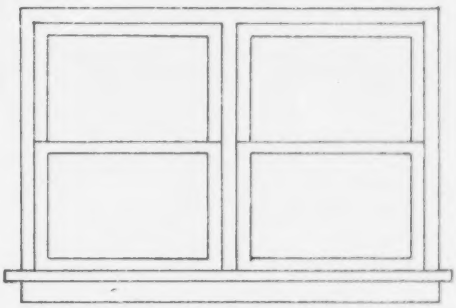
Dormer



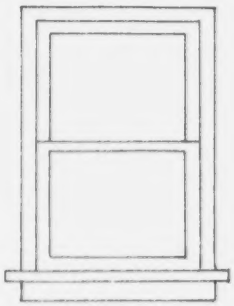
Casement



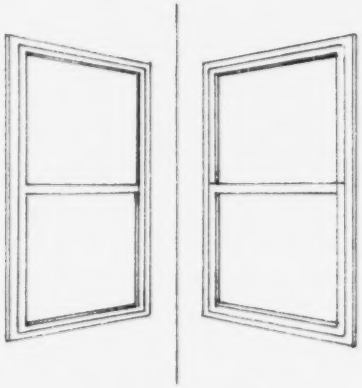
Garden Window



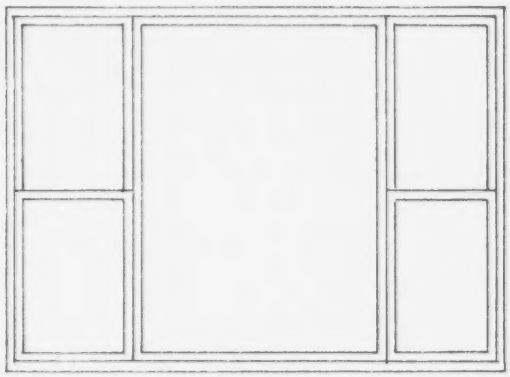
Multiple Double Hung



Double Hung



Double-hung Corner



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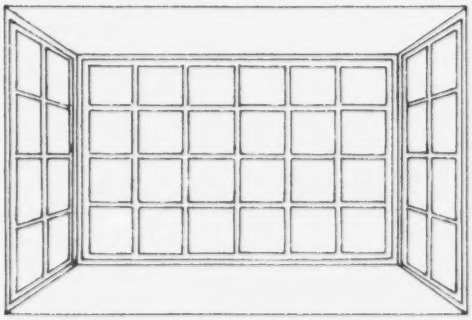

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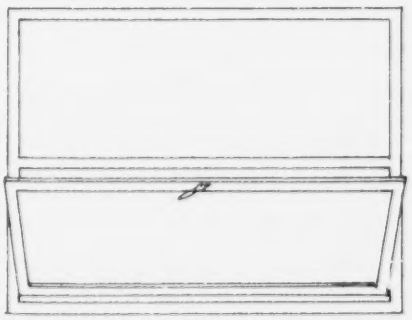
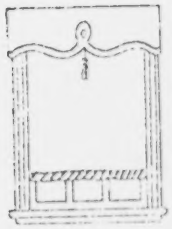
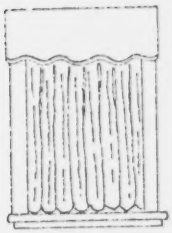


Hopper

Window Treatments





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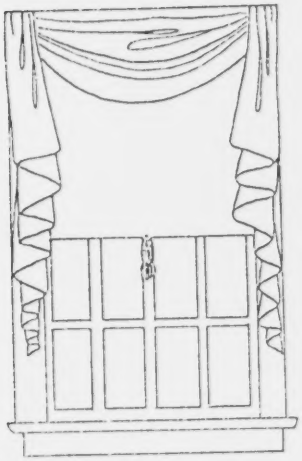

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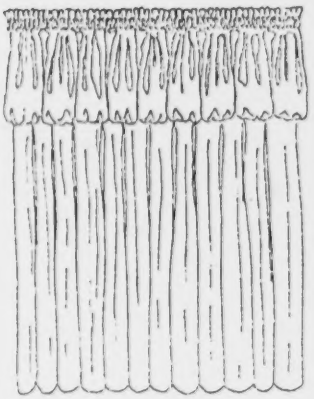

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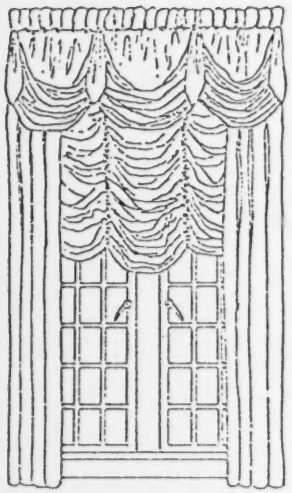

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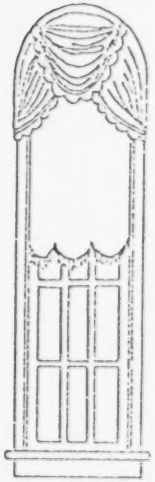

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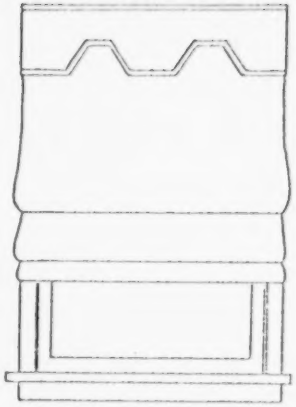

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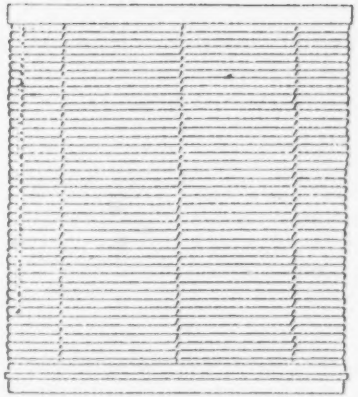

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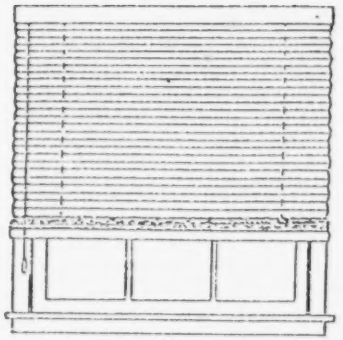

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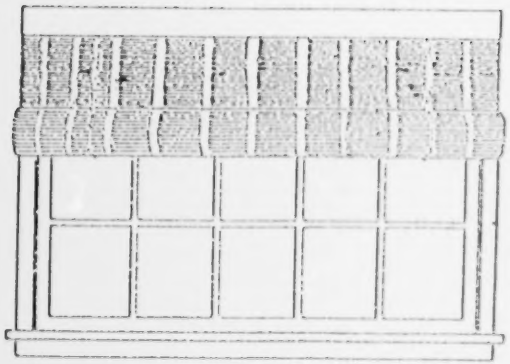

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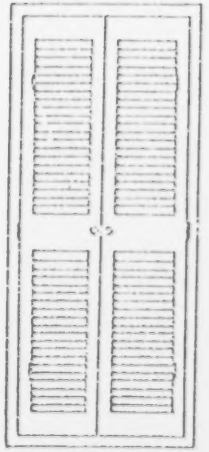

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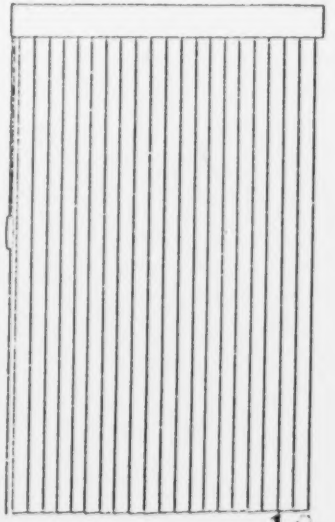

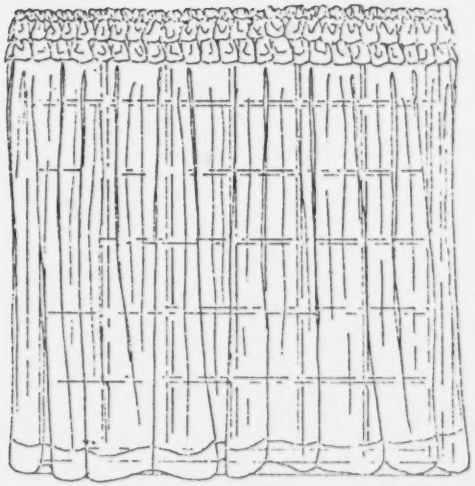

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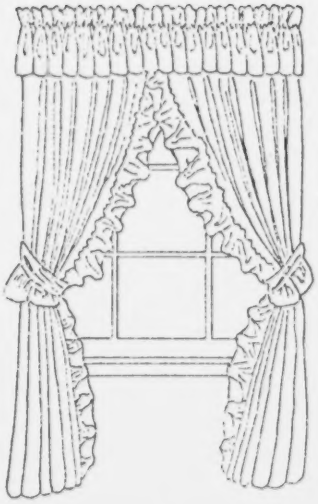

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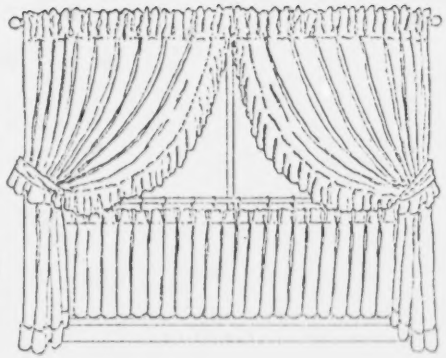

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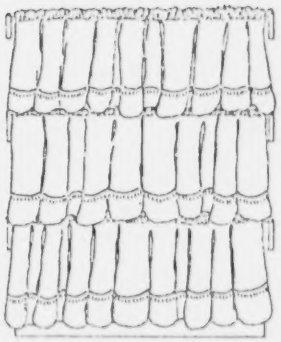

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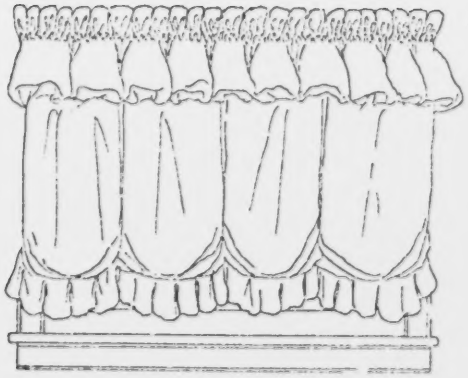

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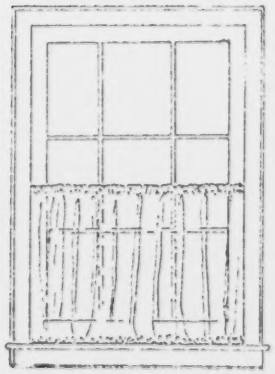

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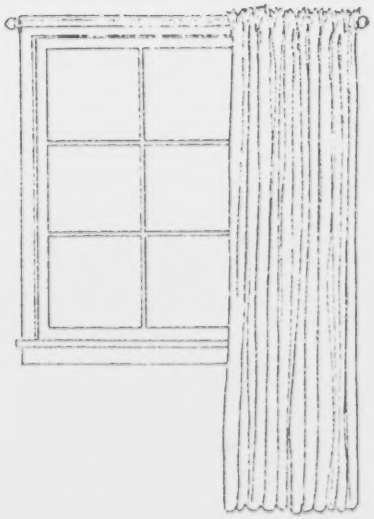

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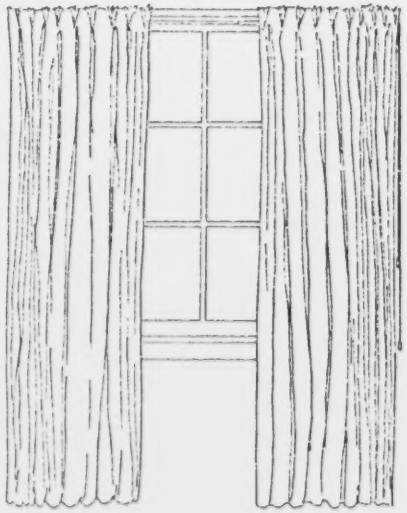


10

10

TA 16c

Window Treatments

A Cornices
B Cascade Valance
C Swag with Drapery Jabot
D Pouff Valance

E Austrian Shade
F Scalloped Shade
G Roman Shade
H Miniblind
I Pleated Blind

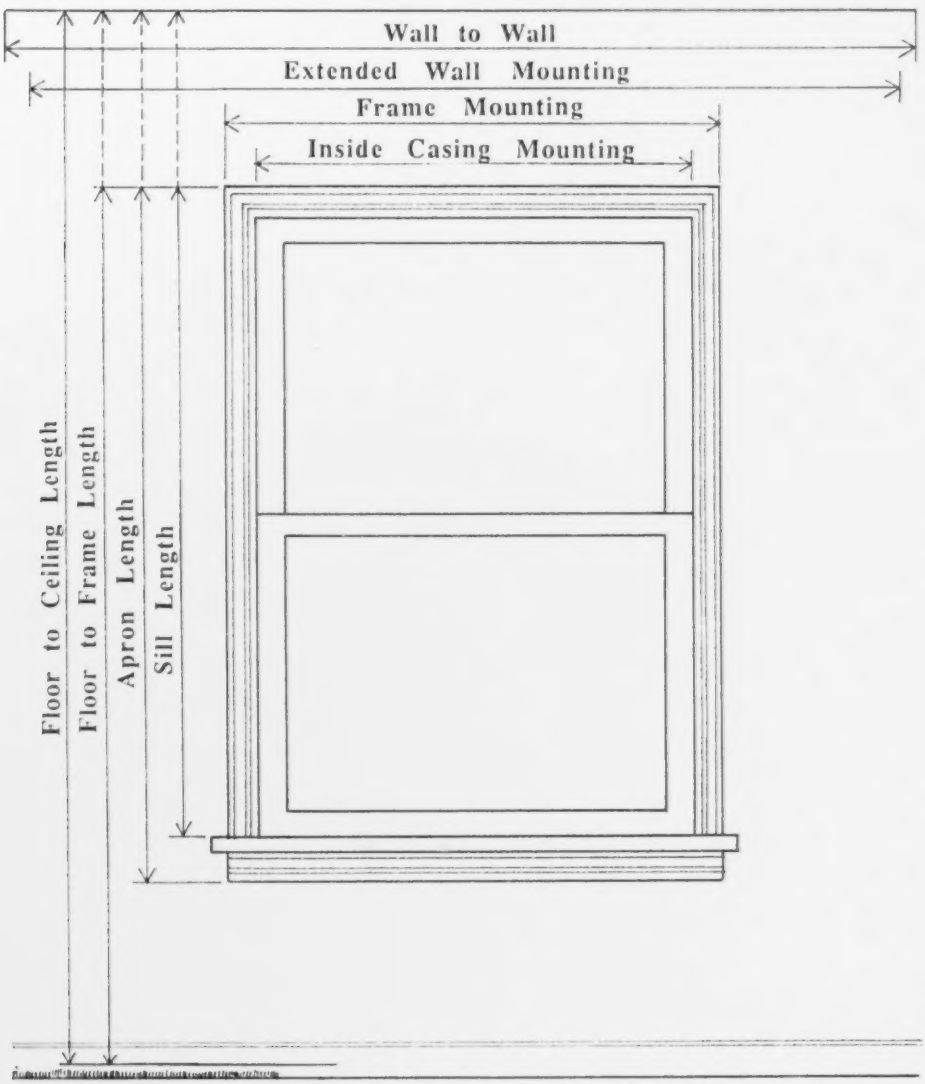
J Cord and Pulley Woven Shade
K Traditional Shade
L Hinged Shutters
M Louvre
N Vertical Blind

O Sheer Curtain
P Priscilla Curtain
Q Cafe Curtain
R Tiered Curtain
S Balloon Curtain
T Sash Curtain
U One-Way Draw Drapery
V Two-Way Draw Drapery

Window Treatment Chart

Treatment	Characteristics	Types of Material or Fabric	Formal	Informal	Casual
Draperies	pleated, heavy fabrics; may open from the side or center; provide privacy when closed	heavy fabrics such as velvet, brocade, antique satin, and damask			
Casement Draperies	sheer, pleated; provide some privacy; filter light; used alone or with draw draperies	sheer fabrics of nylon, lace, polyester, or blends			
Curtains	less formal than drapes; may be shirred, ruffled, gathered on rod, or cafe style; provide some privacy	cottons or cotton blends, polished cotton, chintz, muslin, or broadcloth			
Shades	good light control; used with curtains to prevent fading; improve energy efficiency	woven woods, heavy canvas, and most types of sheer to medium weight fabrics			
Blinds	excellent light control; provide some privacy	metal, fabric covered plastic, wood, or split bamboo			
Shutters	control light; may be used with curtains and other treatments; provide privacy and ventilation	wood frames and slats, wood frames with fabric inserts, or wood frames and other opaque material			
Panels or Screens	may be used as focal point; provide privacy	wood panels (carved or painted), fabric panels, or other opaque material			
Cornices, Valances, and Lambrequins	decorative treatment at top of window	padded wood covered with fabric			

Measurement Options for Window Treatments



Width Measurement Options

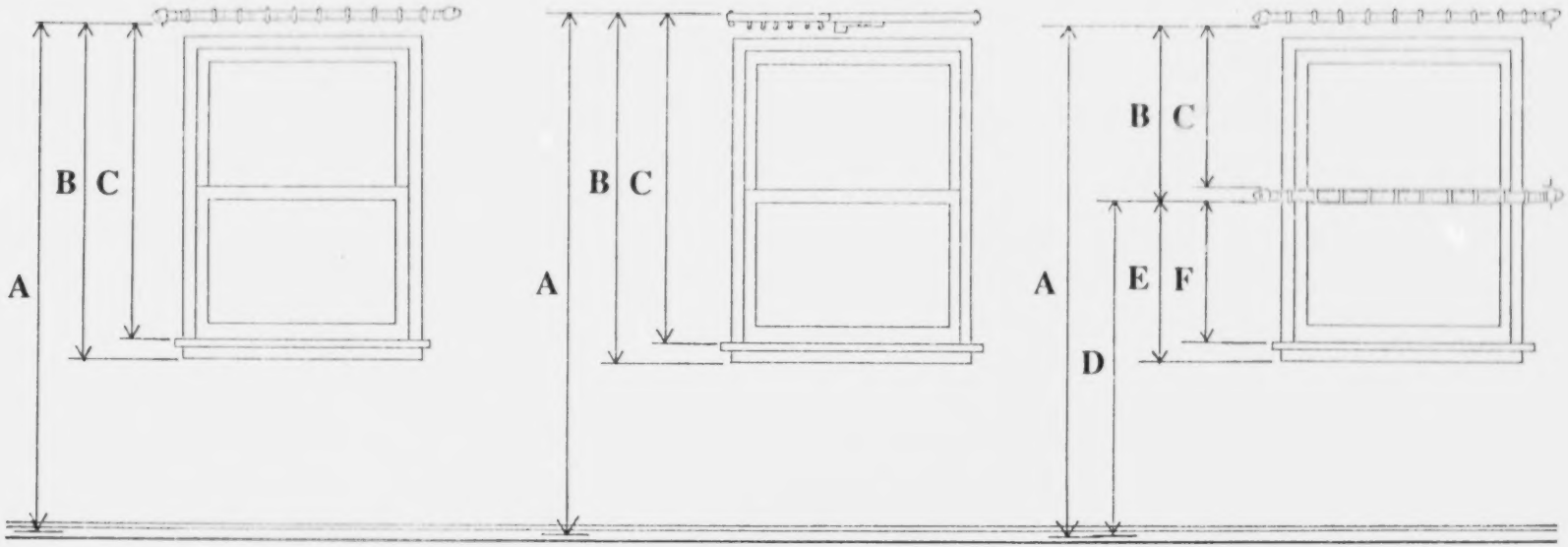
- Wall to wall – corner to corner
- Extended wall mounting – equal distance beyond frame on both sides
- Frame mounting – outer frame edge to outer frame edge
- Inside casing mounting – outer casing edge to outer casing edge

Length Measurement Options

- Floor* to ceiling
- Floor* to frame
- Above frame to sill, apron, or floor*
- Frame to sill, apron, or floor*

* Measure one inch above the floor for clearance

Measuring Lengths for Various Window Treatments



Decorative Traverse Rods

Measure from the bottom of the decorative rings to the:
A. Floor*
B. Apron
C. Sill

Traverse Rods or Curtain Rods

Measure from the top of the rod to the:
A. Floor*
B. Apron
C. Sill

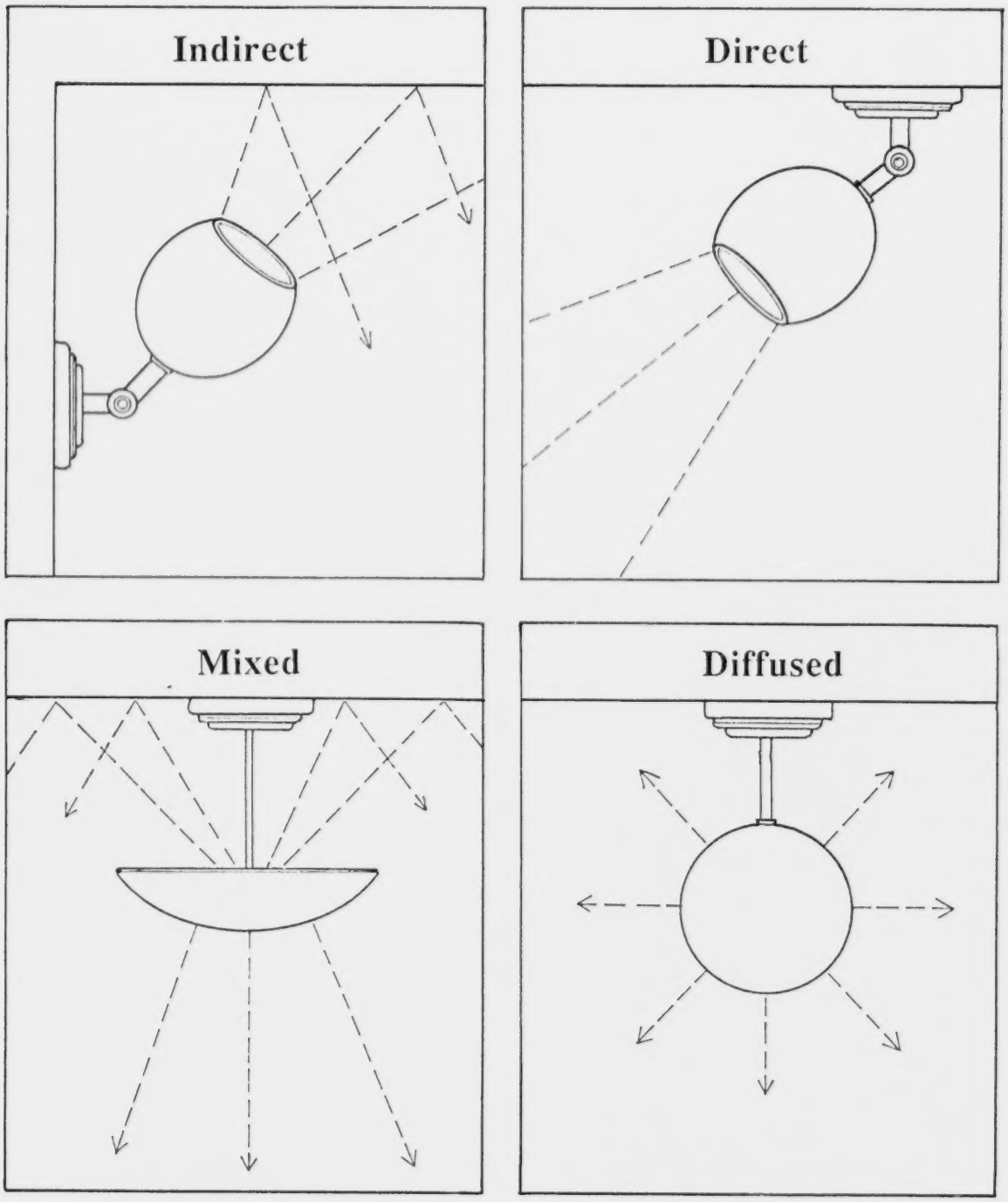
Decorative Cafe Rods

Top Tier: Measure from the bottom of the rings to the:
A. Floor*
B. Bottom of the lower rod
C. Top of the lower rod
Lower Tier: Measure from the bottom of the rings to the
D. Floor*
E. Apron
F. Sill

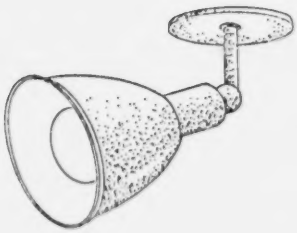
*Measure to one inch above the floor for clearance.

11

Methods of Light Dispersal

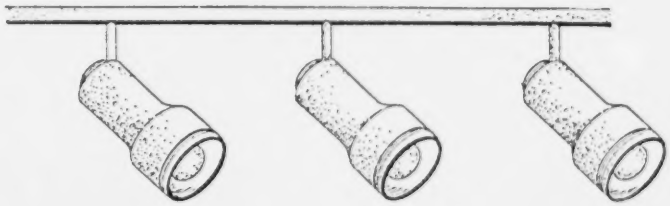


Ceiling Fixtures

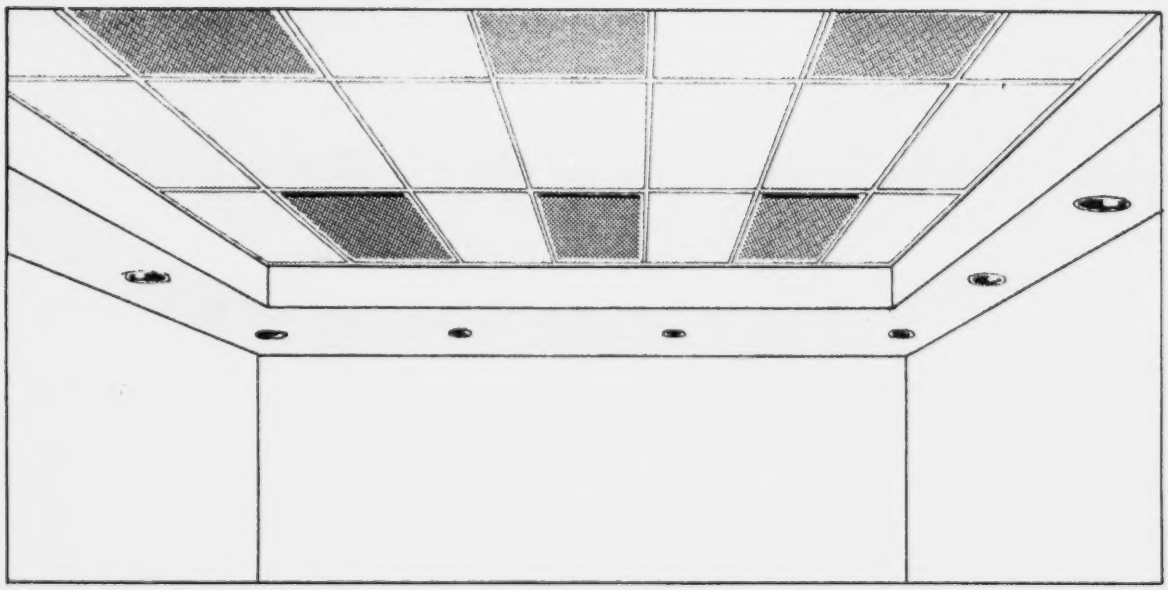


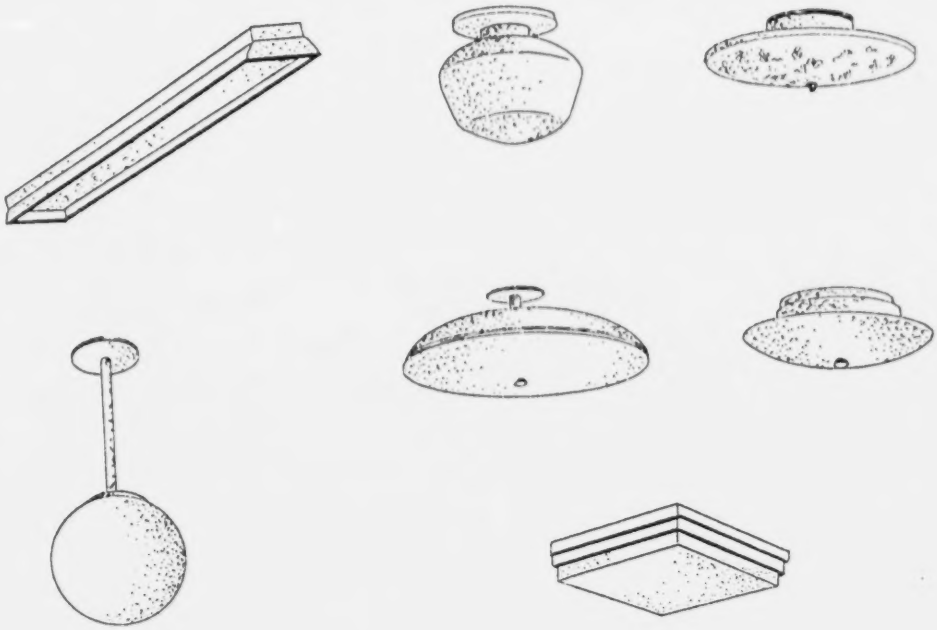
Spot Light

Track Lights

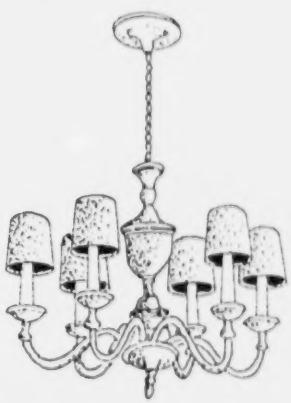


Recessed and Panel Lights

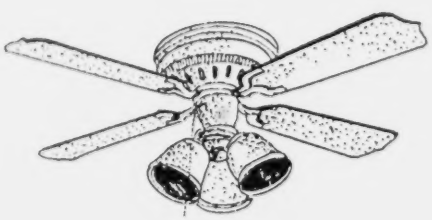




General Lighting



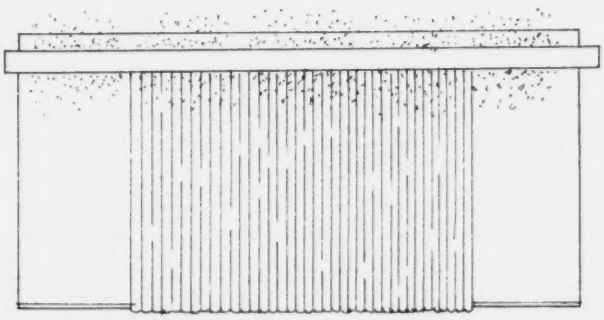
Chandelier

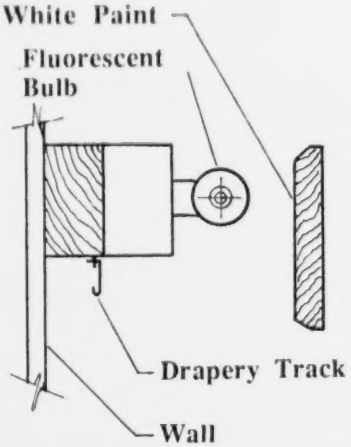


Ceiling Fan

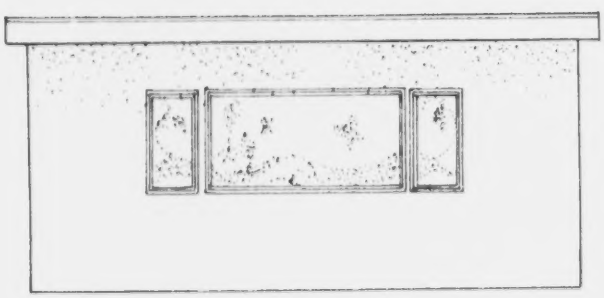
Indirect Lighting

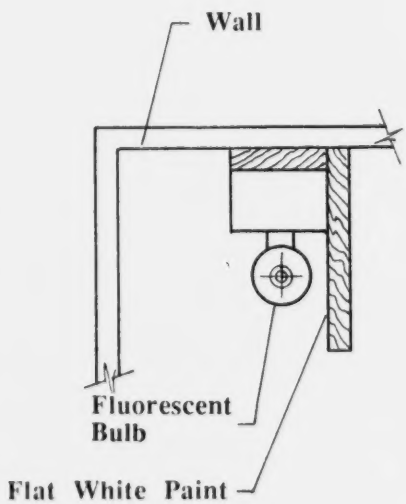
Valance



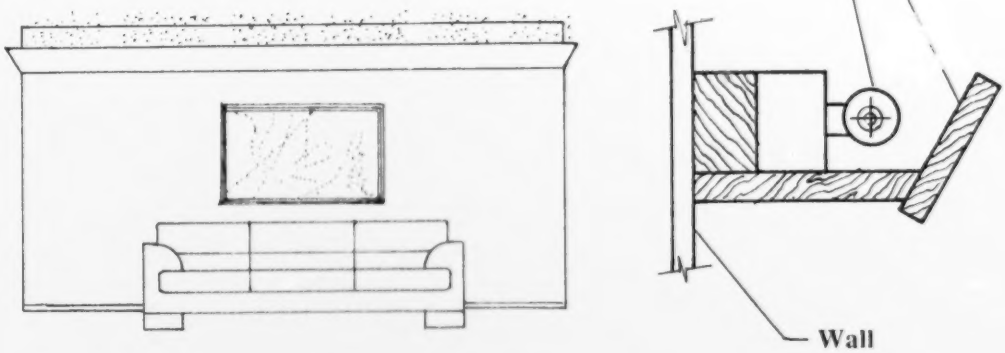


Cornice

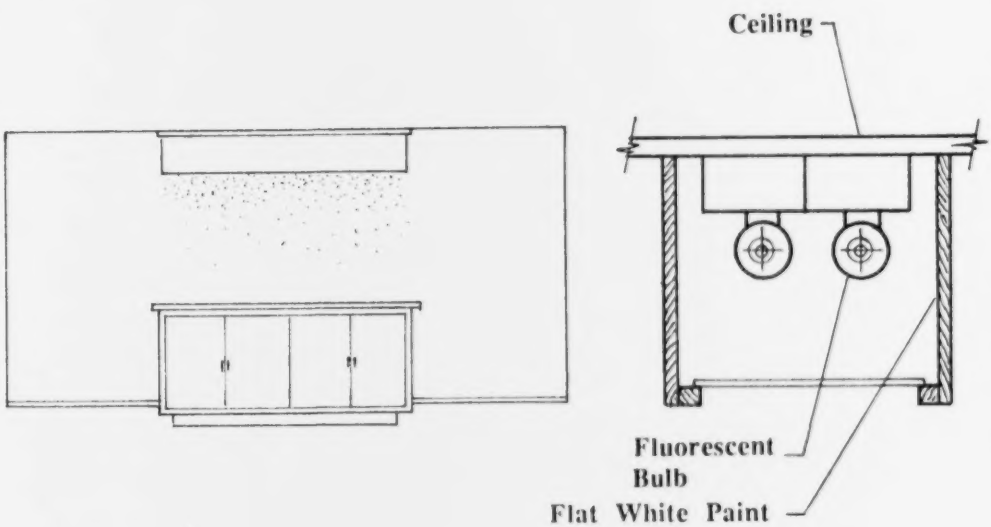




Cove


Flat White Paint
Fluorescent Bulb
Wall

Soffit


Ceiling
Fluorescent Bulb
Flat White Paint

Room Lighting Needs

Entry

High-level general lighting
Decorative lighting

Living Room

Low-level general lighting
Specific lighting for reading
Decorative lighting for drapes, fireplaces, paintings, plants, fish tanks, and for entertaining and conversation areas to set mood

Dining Room

Low-level general lighting
Specific lighting over dining table
Decorative lighting for drapes, paintings, buffets, china, cabinets

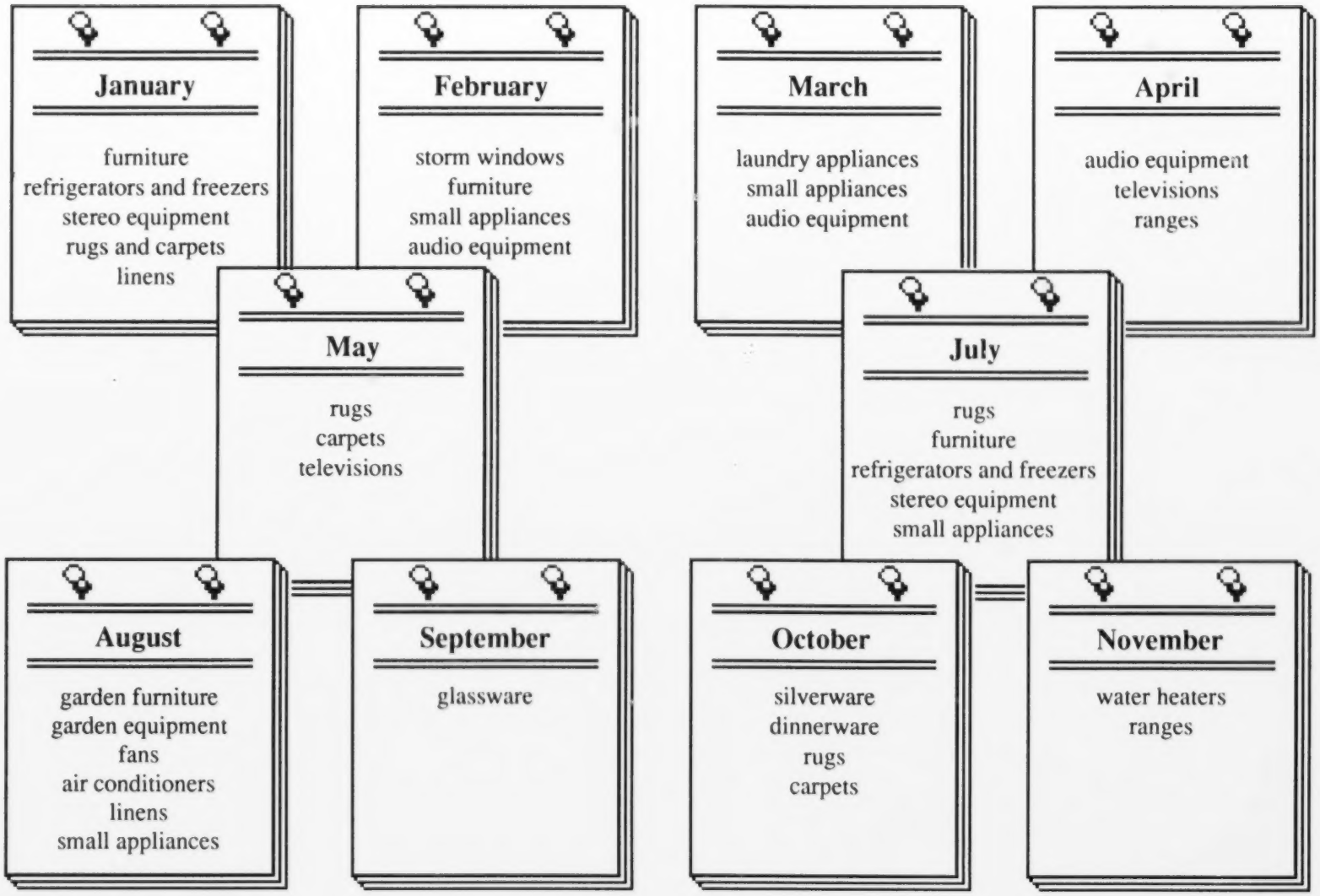
Kitchen

High-level general lighting
Specific lighting for kitchen tasks

Bedroom

Low-level general lighting
Specific lighting for reading and makeup
Light in front of wardrobe closet doors
Night light

Bargain Time



The Cost of Using Appliances

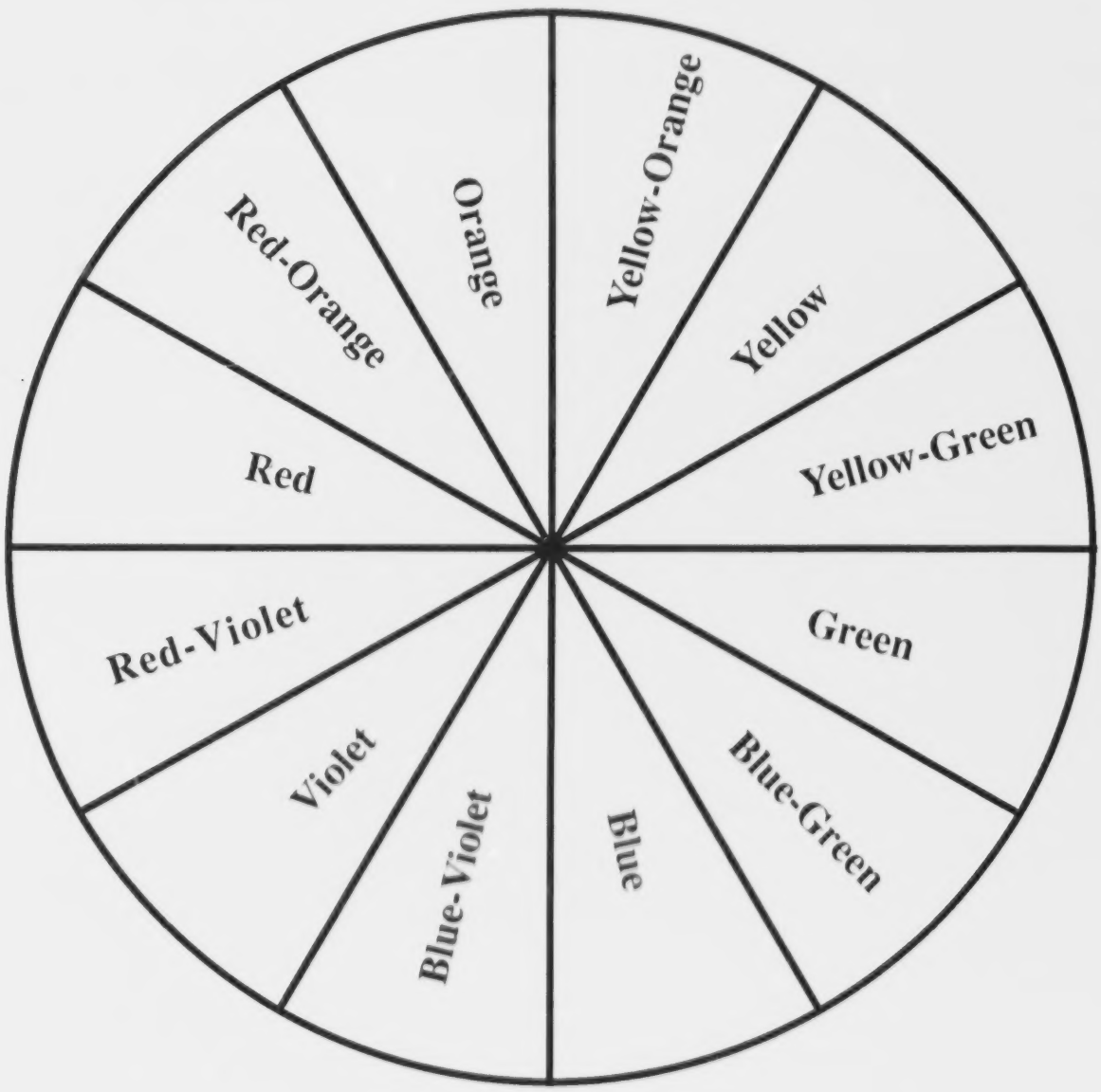
The chart lists figures published by Underwriters Laboratories (UL) showing the average wattages and yearly hours of use of common home appliances. The costs of operation were calculated using 7.10¢ as the estimated national average residential charge per kilowatt-hour (kwh), based on figures from the Department of Energy. To estimate the yearly cost of appliances, call a local electric company and ask for the residential kwh rate. Multiply that rate by the appropriate figure in the column labeled "Average kwh Used per Year." Record this yearly cost of using each of the appliances in the column provided on the chart.

Appliance	Average Wattage	Average hours used per year	Average kwh used per year	Yearly Cost at 7.10¢ per kwh	Yearly Cost at local kwh rate
air cleaner	50	4,320	216	15.34	
air-conditioner, window	1,556	750	1,175	83.43	
blanket	177	831	147	10.44	
blender	386	39	15	1.07	
broiler	1,436	70	100	7.10	
clock	2	8,760	17	1.21	
clothes dryer	4,856	204	993	70.50	
coffee maker	894	119	106	7.53	
deep fryer	1,448	57	83	5.89	
dehumidifier	257	1,467	377	26.77	
fan, attic	370	786	291	20.66	
fan, circulating	88	489	43	3.05	
fan, rollaway	171	807	138	9.80	
fan, window	200	850	170	12.07	
floor polisher	305	49	15	1.07	
freezer, 15 cubic feet	341	3,504	1,195	84.85	
freezer, frostless 15 cubic feet	440	4,002	1,761	125.03	
frying pan	1,196	157	188	13.35	
hair dryer	381	37	14	0.99	
heater, portable	1,322	133	176	12.50	
heating pad	65	154	10	0.71	
hot plate	1,257	72	90	6.39	

Appliance	Average Wattage	Average hours used per year	Average kwh used per year	Yearly Cost at 7.10¢ per kwh	Yearly Cost at local kwh rate
humidifier	177	921	163	11.57	
iron	1,006	143	144	10.22	
mixer	127	102	13	0.92	
oven, microwave	1,500	200	300	21.30	
oven, self-cleaning	4,800	239	1,147	81.44	
radio	71	1,211	86	6.11	
radio/phonograph	109	1,000	109	7.74	
range	8,200	128	1,050	74.55	
refrigerator, 12 cubic feet	241	3,021	728	51.69	
refrigerator, frostless 12 cubic feet	321	3,791	1,217	86.41	
refrigerator, frostless 14 cubic feet	326	3,448	1,124	79.80	
refrigerator/freezer 14 cubic feet	615	2,947	1,812	128.65	
roaster	1,333	154	205	14.56	
sewing machine	75	147	11	0.78	
sun lamp	279	57	16	1.14	
toaster	1,146	34	39	2.77	
TV, b&w (tube)	160	1,500	240	17.04	
TV, b&w (solid state)	55	1,500	83	5.89	
TV, color (tube)	400	1,500	600	42.60	
TV, color (solid state)	200	1,500	300	21.30	
vacuum cleaner	630	73	46	3.27	
vibrator	40	50	2	0.14	
waffle iron	1,116	20	22	1.56	
washing machine, automatic	521	198	103	7.31	
washing machine, nonautomatic	286	266	76	5.40	
waste disposer	445	67	30	2.13	
water heater	4,474	1,075	4,810	341.51	

Source: "The Cost of Using Your Appliances," *Changing Times* 37:24, February, 1983.

The Color Wheel



Value and Intensity Chart

Gather the following equipment and materials:

- poster paint, water color, or acrylic paint (black, white, and two complementary colors)
- paintbrush
- wax paper, plastic plate, or paper plate to use as a palette
- cup of water to wash brushes
- old shirt or smock
- dull plastic knife, cotton swabs, or palette knife for mixing paint on palette

How to Complete the Value and Intensity Chart

1. Put a dab of one of the complementary colors (pure color) in each of the two squares marked Start Here.

2. Mix equal amounts of white and black paint together on your palette to make a medium gray.

3. Use palette knife or cotton swabs to mix on your palette a very small amount of gray into the pure color you used on the upper square marked Start Here.

4. Put a dab of this newly mixed color into the square to the right of its pure color on the upper row of the intensity scale.

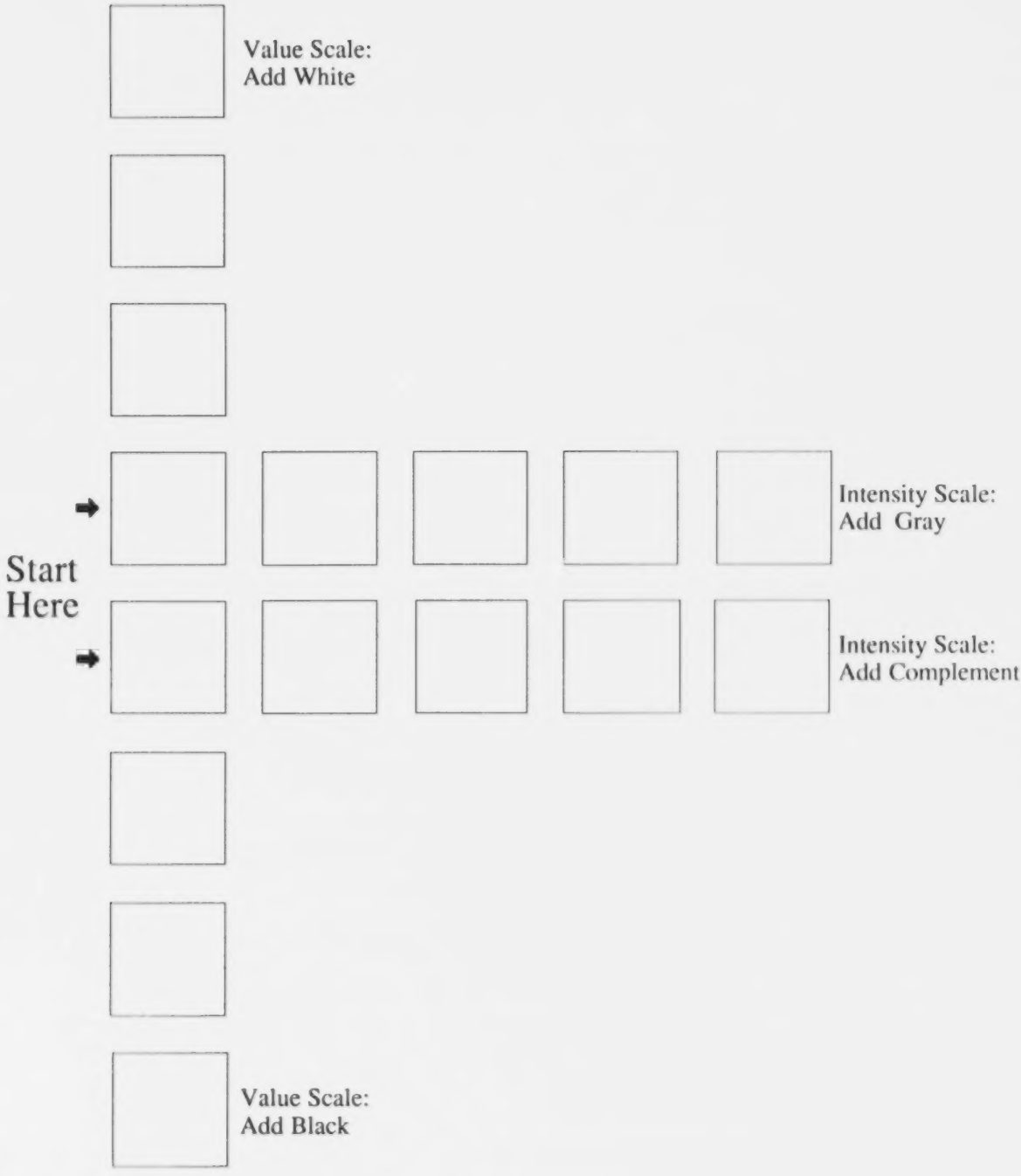
5. Continue mixing gray into the color on your palette three more times, each time adding the same size dab of gray to the color and placing a dab of the mixed color into the next square on the intensity scale.

6. To complete the lower intensity scale, mix a small amount of the second pure complementary color with a dab of the first pure complementary color on your palette. Use the same mixing process as before, each time putting a dab of the new color in the next square of the intensity scale.

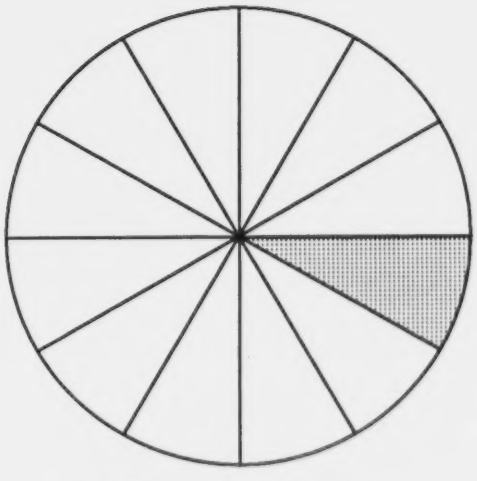
7. Mix on your palette a small dab of white to the first pure complementary color you used on the upper row. Put a dab of the new color into the square above your first pure complementary color. Mix white with the color two more times to fill the remaining squares going up the value scale.

8. Using black, repeat the process starting with the pure color on the lower row. Fill the three remaining squares going down the value scale.

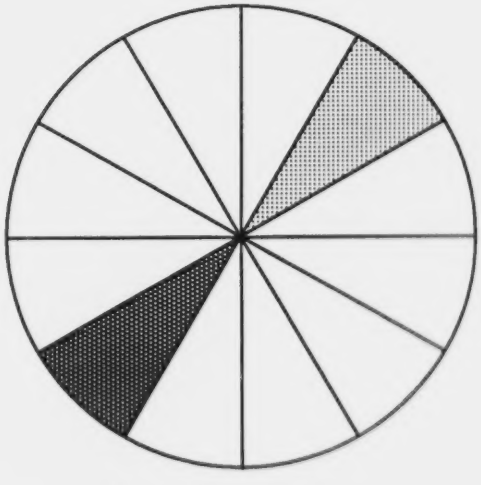
Value and Intensity Chart



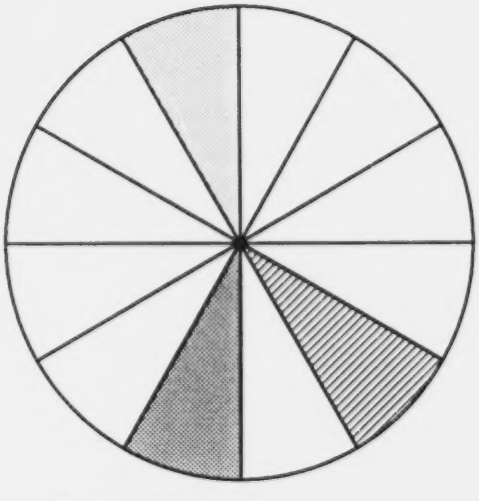
Types of Color Schemes



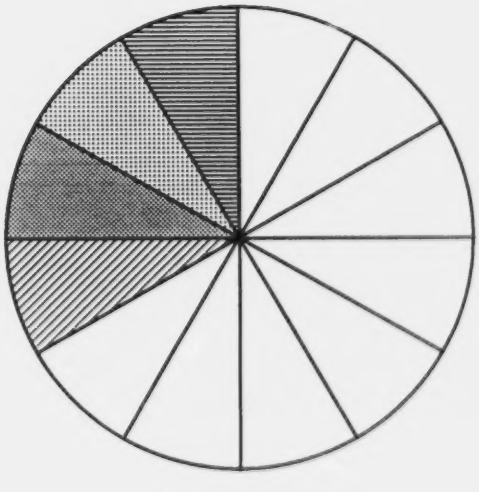
Monochromatic



Complementary



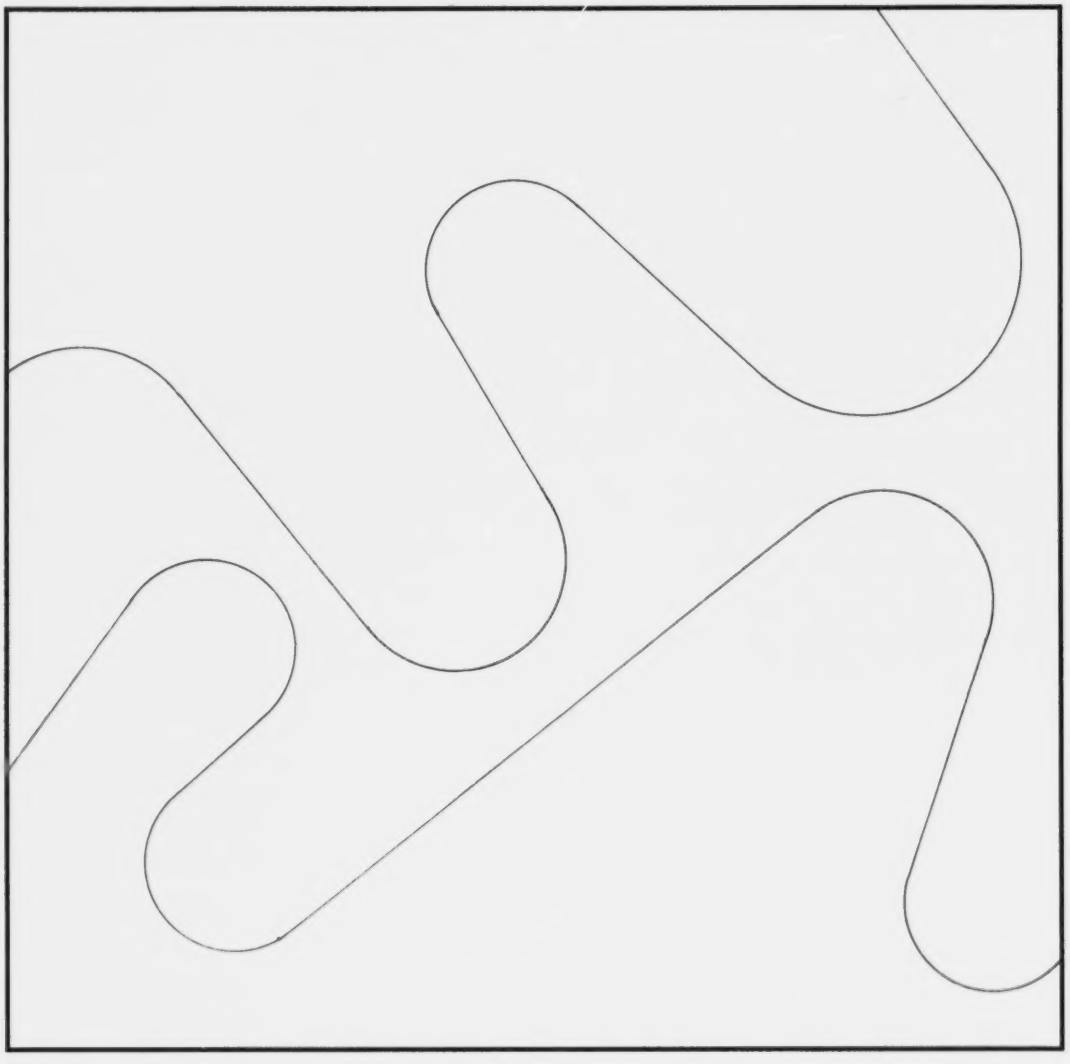
Split Complementary



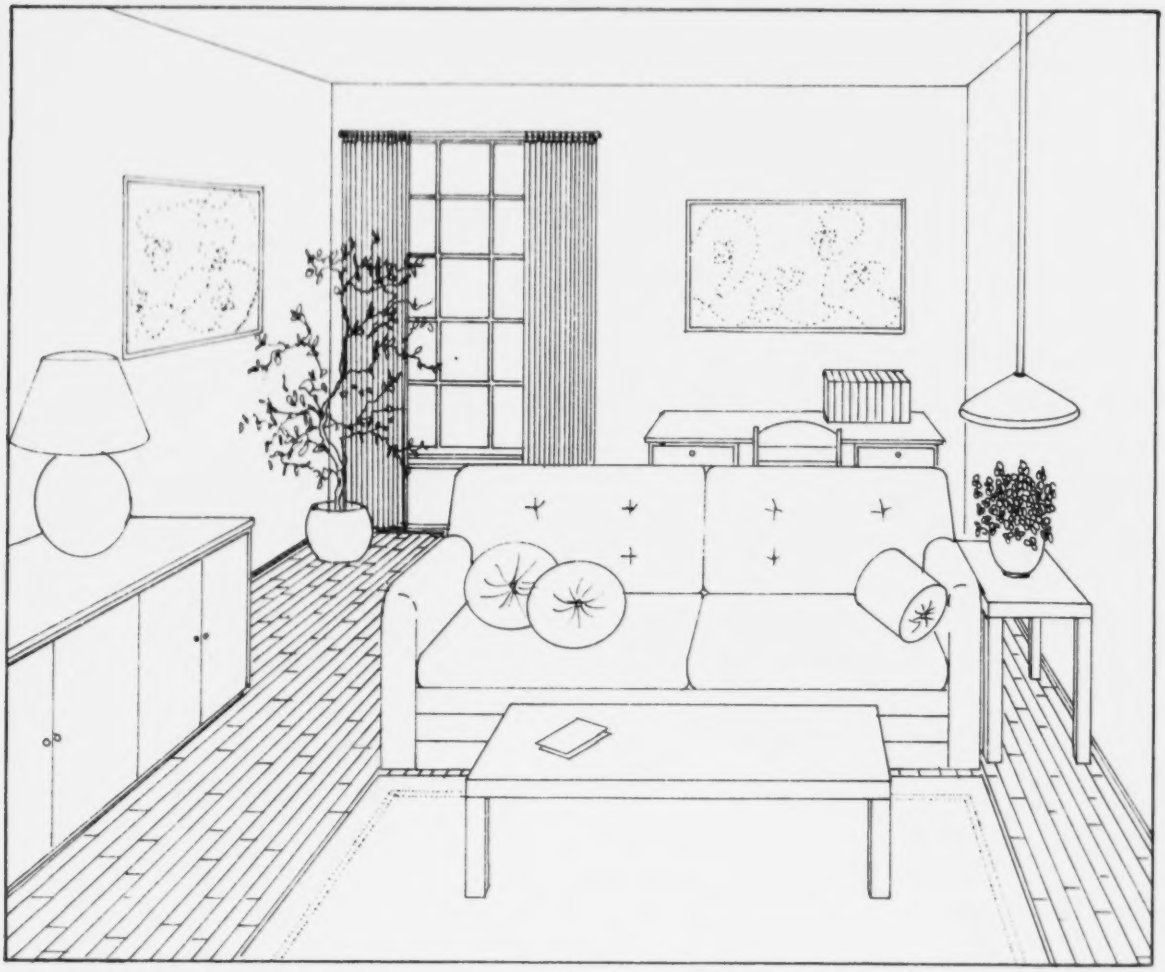
Analogous

Creating Color Schemes

Plan an analogous color scheme, choosing three colors directly adjacent on the color wheel. Remember that you do not need to use the color at full strength. You can work with grayed (low intensity) colors or with values lighter or darker than normal. Use the abstract shape below to display the color scheme chosen. Repeat the exercise for a complementary color scheme and a triad color scheme.



Illustrating Color Schemes



Home/Apartment Tour Checklist

Housing Type	Room Chosen	Color Scheme	Effects
1.			
2.			
3.			
4.			
5.			

Which color combinations did you like best?

Evaluating Space in a Home

Guidelines

1. A home should provide a minimum of 300 square feet per person (500 square feet per person provides more comfortable living). As more family members are added, the space required by each person may decrease slightly.

2. Family members use some of the same public (social) and service (work) areas in the home. Families with very different ages and interests may require more space per person than families with members having similar ages and interests. If a home includes spaces which can be used for various purposes, the total space needed may decrease.

Directions

Calculate the square footage of the floor plans to find the one most suitable for the London family who has just moved to a new community. Mr. and Mrs. London have three children, Stephanie, 14; David, 6; and Patricia, 11.

To calculate the square footage, measure the inside floor space. Use a scale of 1/8"= 1'. **Do not include a garage, an attic, or an unfinished cellar as living space.** Divide the total figure by the number of people who live in the home to find the square footage per person.

Review the calculations for floor plans A and B on this teaching aid. Based on the guidelines, select a home for the London family. In the space below, identify the floor plan selected and explain why it was chosen to meet the needs of the family.

Evaluating Space in a Home

Floor Plan A
Scale: 1/8"=1'

13

13

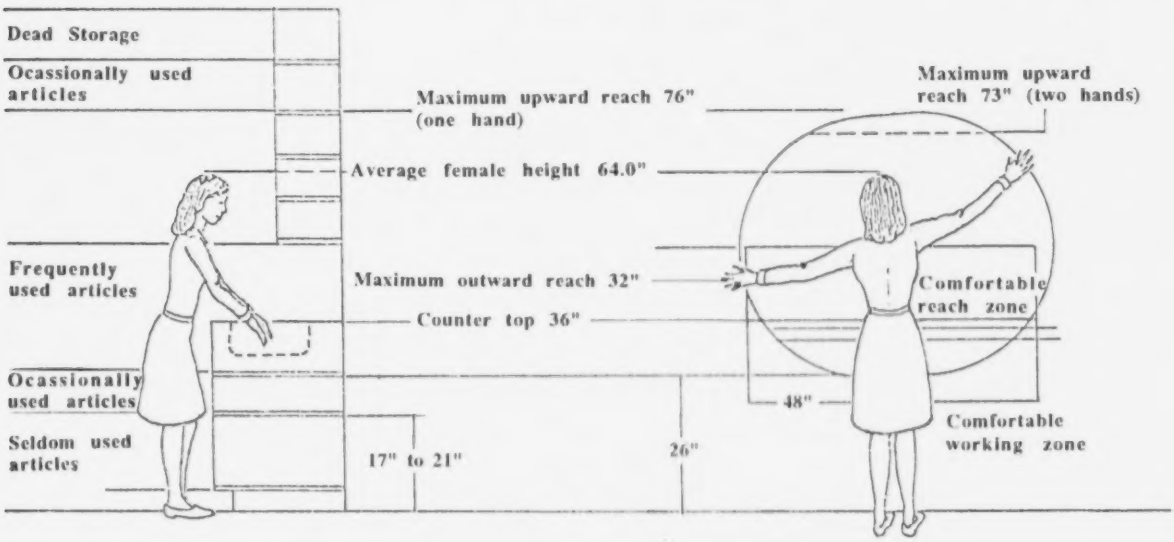
TA 32b

Evaluating Space in a Home

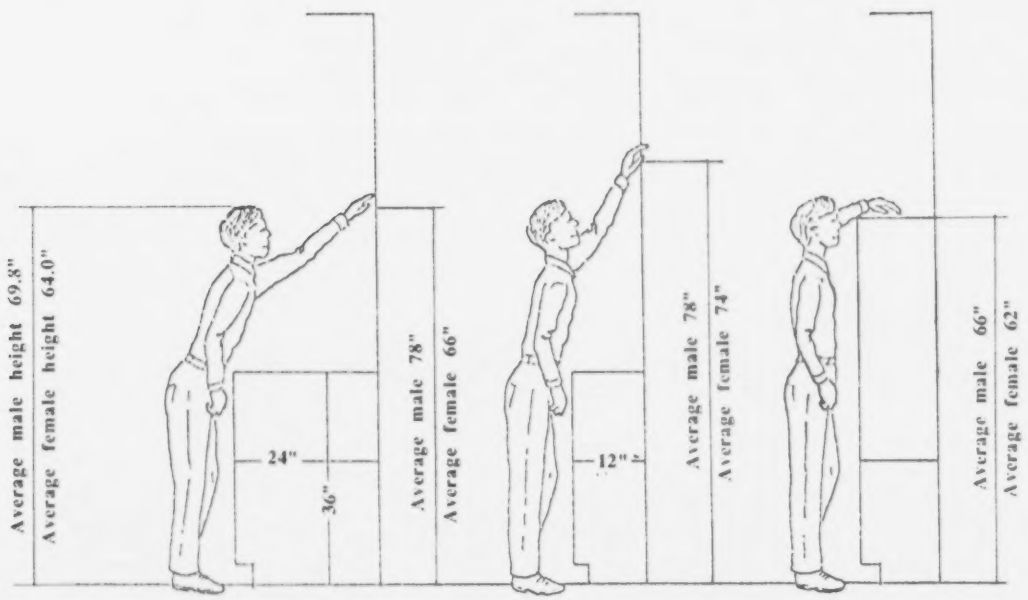
Floor Plan B
Scale: 1/8"=1'

13

Reach Capability



Storage Placement **Horizontal Work Reach**



Vertical Reach

Spaces Needed in Dining Rooms and Kitchens

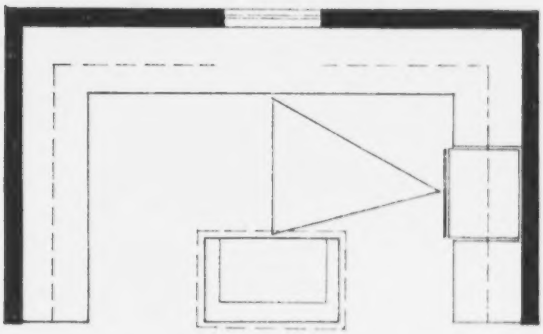
Kitchens

Refrigerator	
Space on latch side of refrigerator	18"
Space in front of refrigerator	36"
Range	
Space in front of range for a person using it in a standing position	38"
Space in front of the tip of the open door for a person using it while kneeling	38"
Space on each side of range	24"
Dishwasher	
Space in front of front-loading dishwasher	42"
Sink	
Space to right of sink for stacking dirty dishes	36"
Space to left of sink	18"
Cabinets	
Space between base cabinets and wall cabinets for allowing space for portable appliances	15"-18"

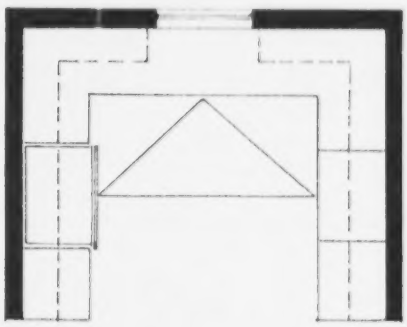
Dining Rooms

Table	
Space for room at table for each adult	24"
Space needed to get into dining chair	30"
Space needed for serving space behind chair	30"
Space for pushed in chair and dining table	20"
Size of a rectangular table that seats four to six people	2'6" x 5'6"
Space needed from table to wall or buffet to pull out chair and be seated	32"
Service	
Space needed from edge of table to the wall or buffet for serving around an occupied table	36"-44"
Room	
Minimum dining area for four people	80 sq. ft.
Space for a dining room that includes a hutch and a buffet	180 sq. ft.

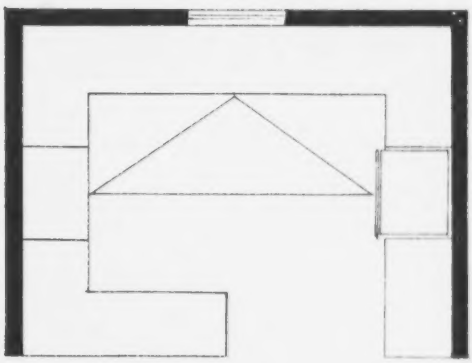
Basic Kitchen Shapes



Island

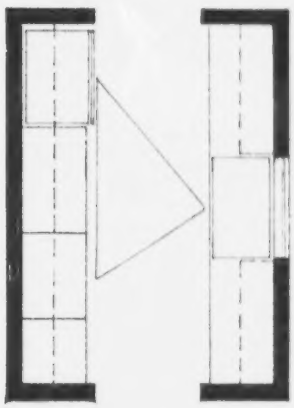


U-shaped

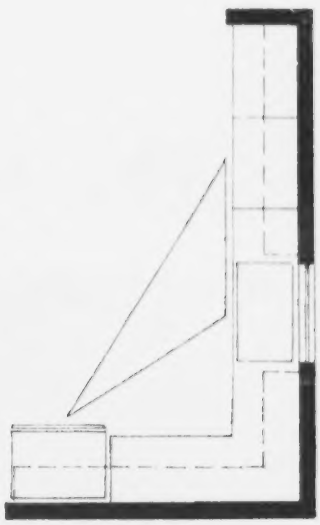


Peninsula

Single Wall



Corridor



L-shaped

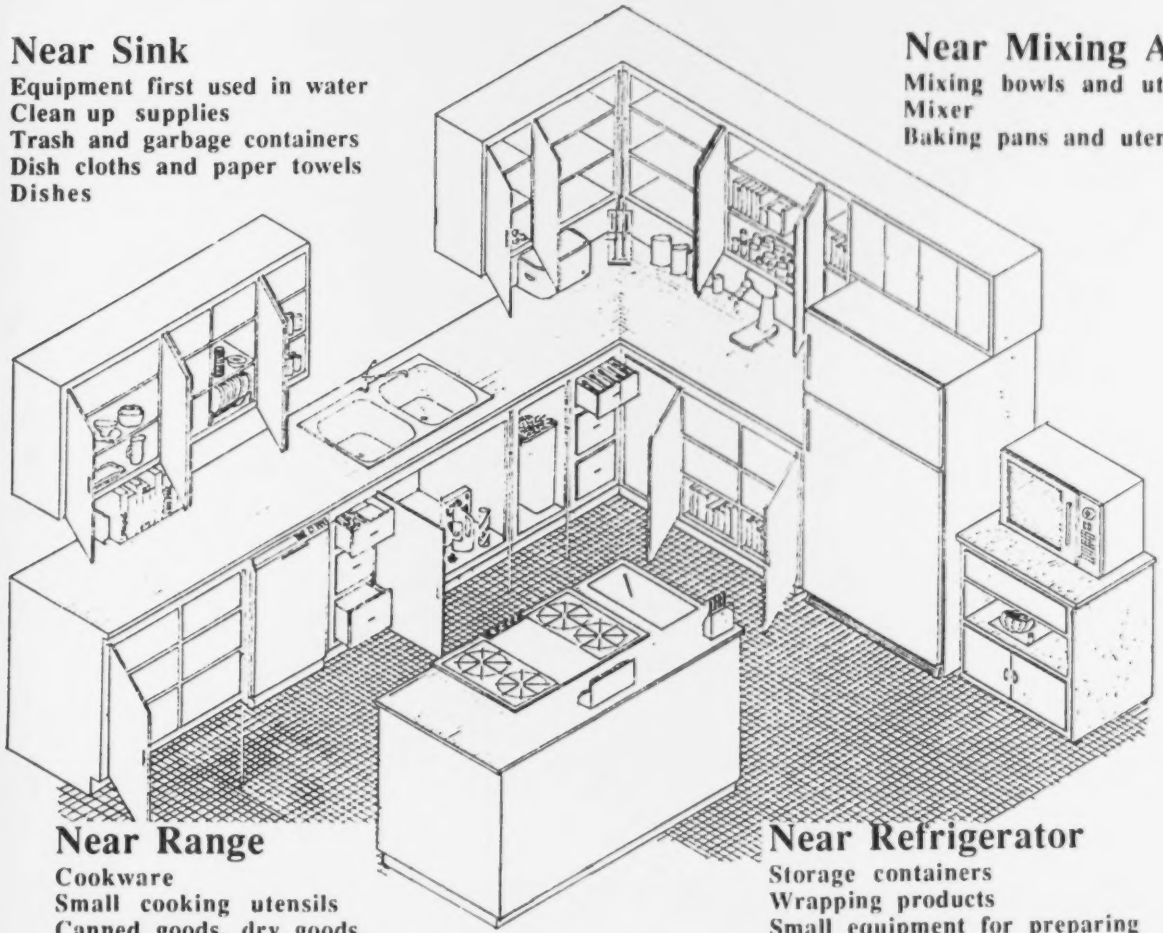
Appropriate Use of Kitchen Storage Space

Near Sink

Equipment first used in water
Clean up supplies
Trash and garbage containers
Dish cloths and paper towels
Dishes

Near Mixing Area

Mixing bowls and utensils
Mixer
Baking pans and utensils



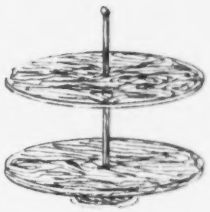
Near Range

Cookware
Small cooking utensils
Canned goods, dry goods, and seasonings

Near Refrigerator

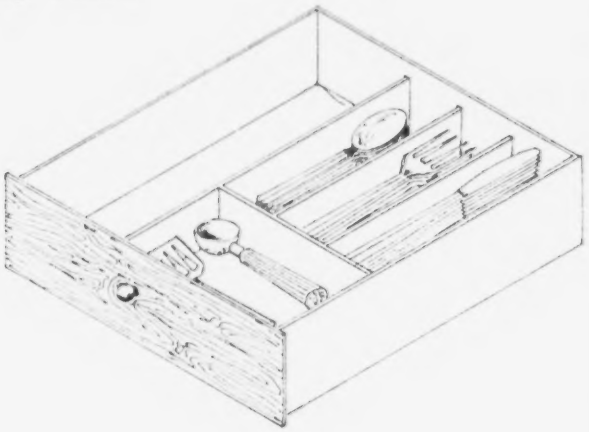
Storage containers
Wrapping products
Small equipment for preparing foods from the refrigerator

Kitchen Storage Devices

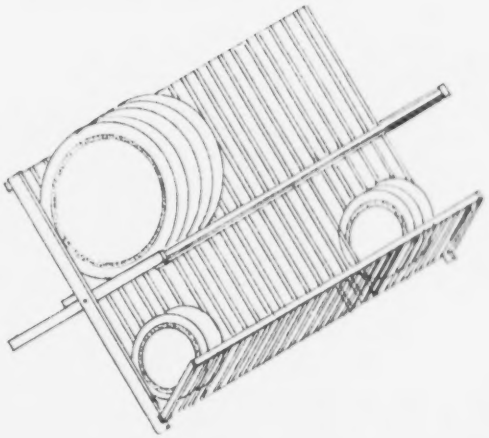


Lazy Susan

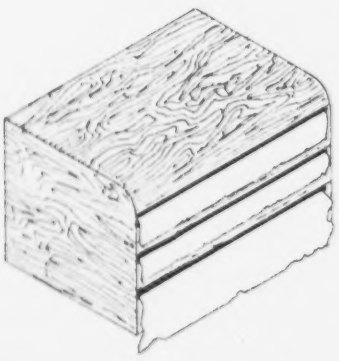
Gadget Organizer



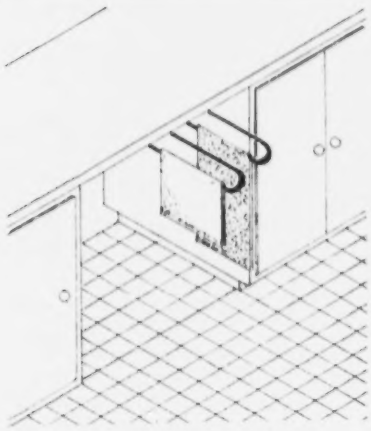
Divided Drawer Insert



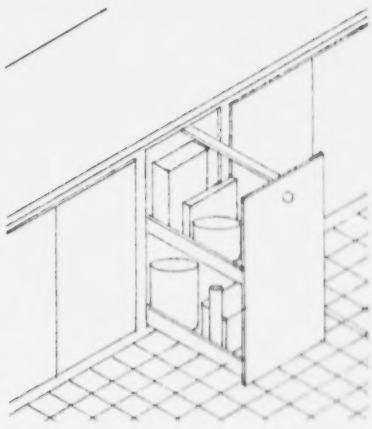
Slatted Dish Rack



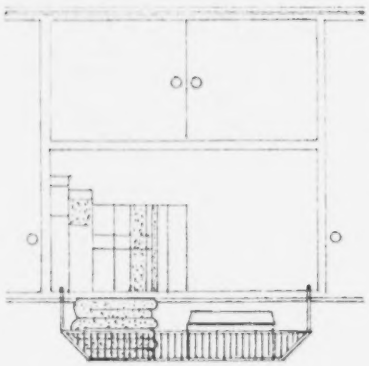
Kitchen Paper Roll Holder



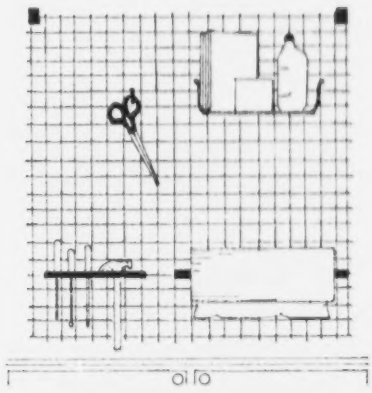
Slide-out Dishcloth Rack



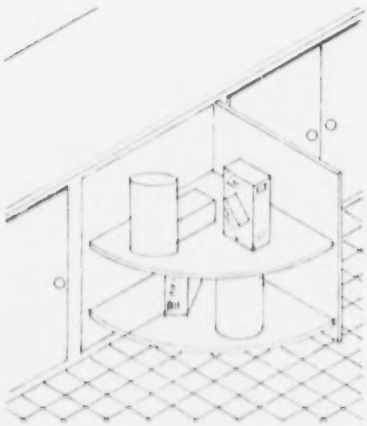
Verticle Drawer



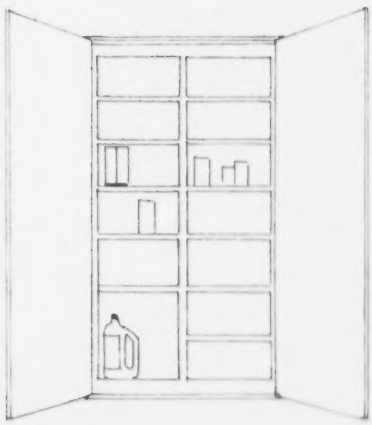
Under Counter Baskets



Wall Grid



Swing-out Shelves

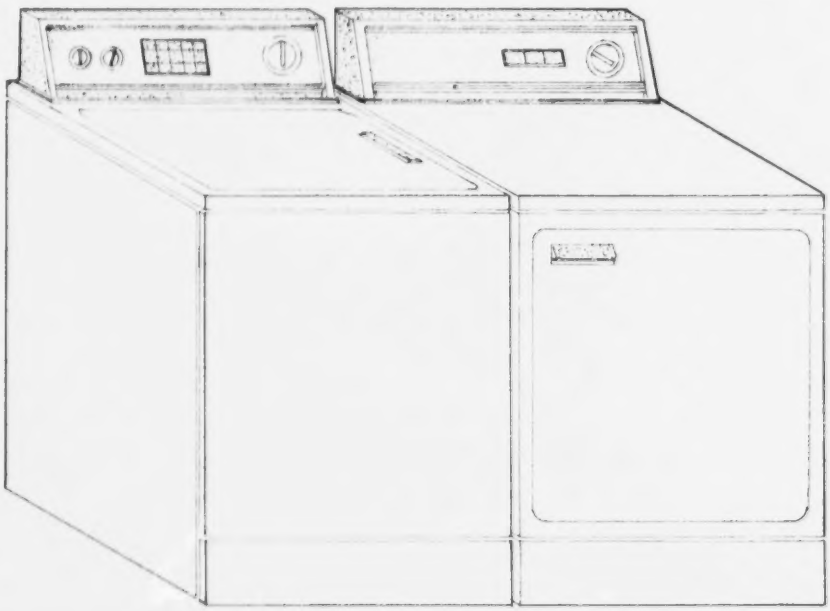


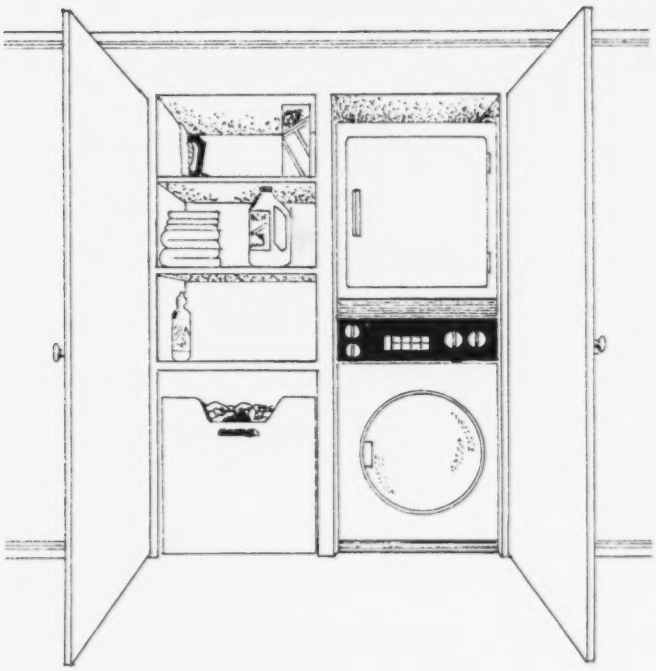
Built-in Pantry

Planning a Laundry Area

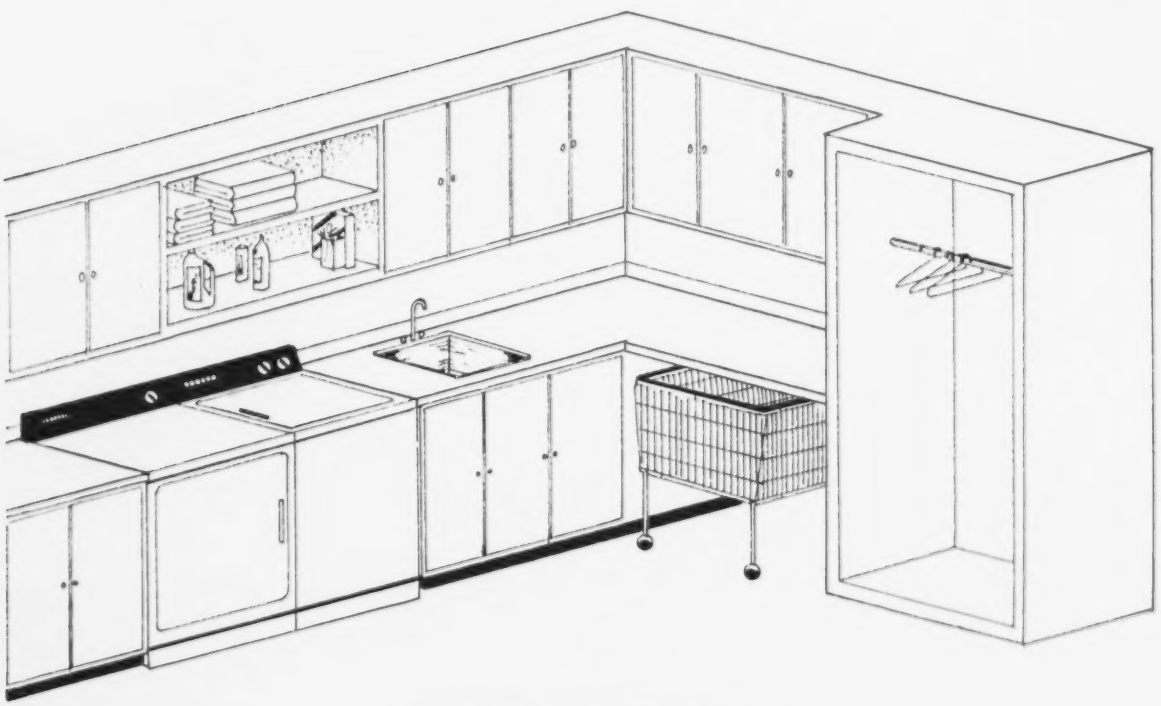
A laundry area should include the following:

- Facilities for collecting laundry
- Space for sorting laundry
- Space for storing laundry supplies
- Sink for pre-treating laundry
- Space for washer and dryer
- Place to hang garments
- Table for folding clothes
- Facilities for ironing or pressing



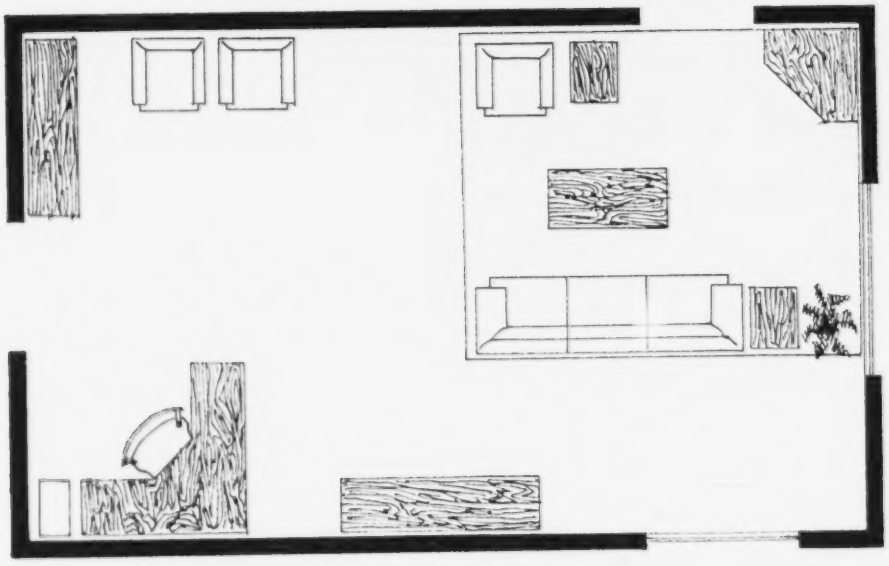


Limited Space Laundry

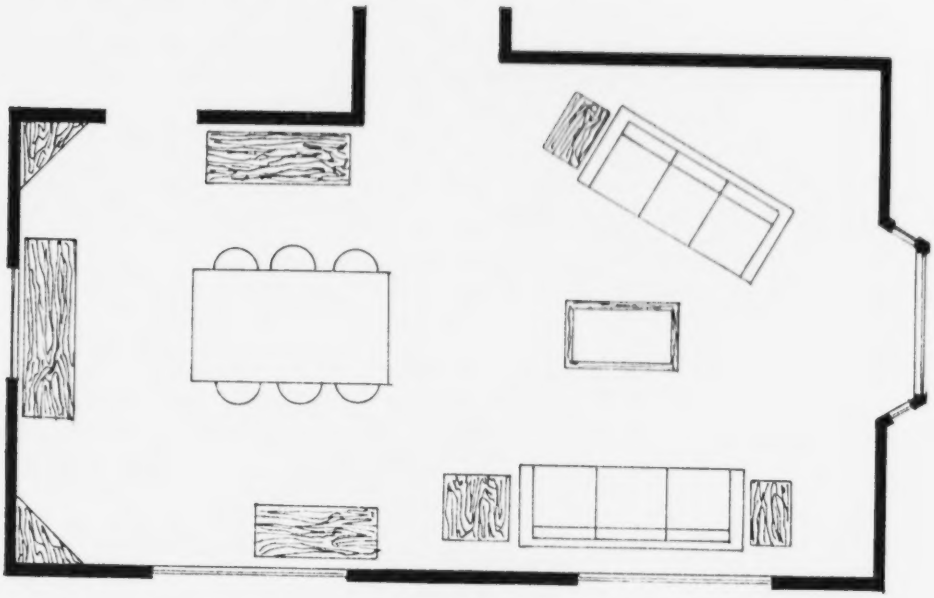


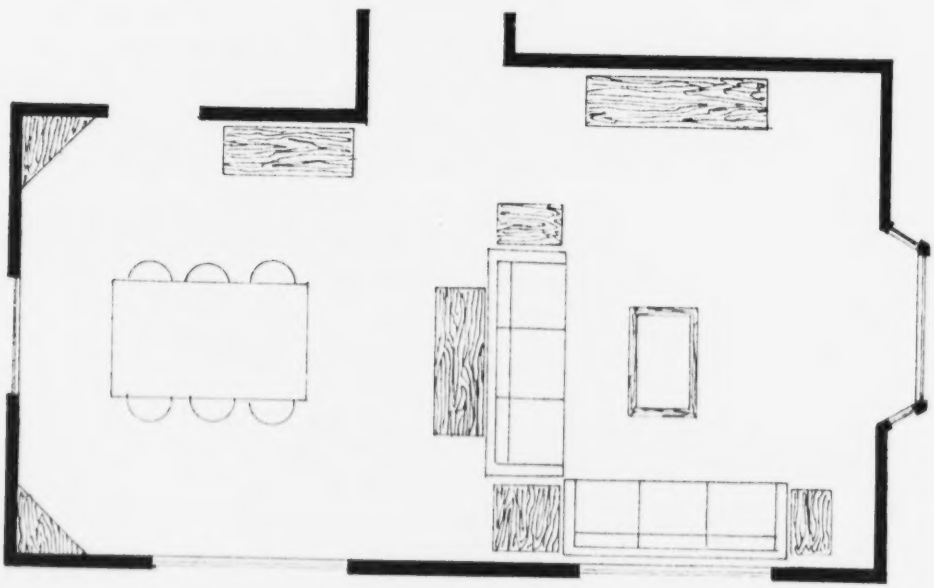
Ample Space Laundry

Analyzing Furniture Arrangements



TA 39b

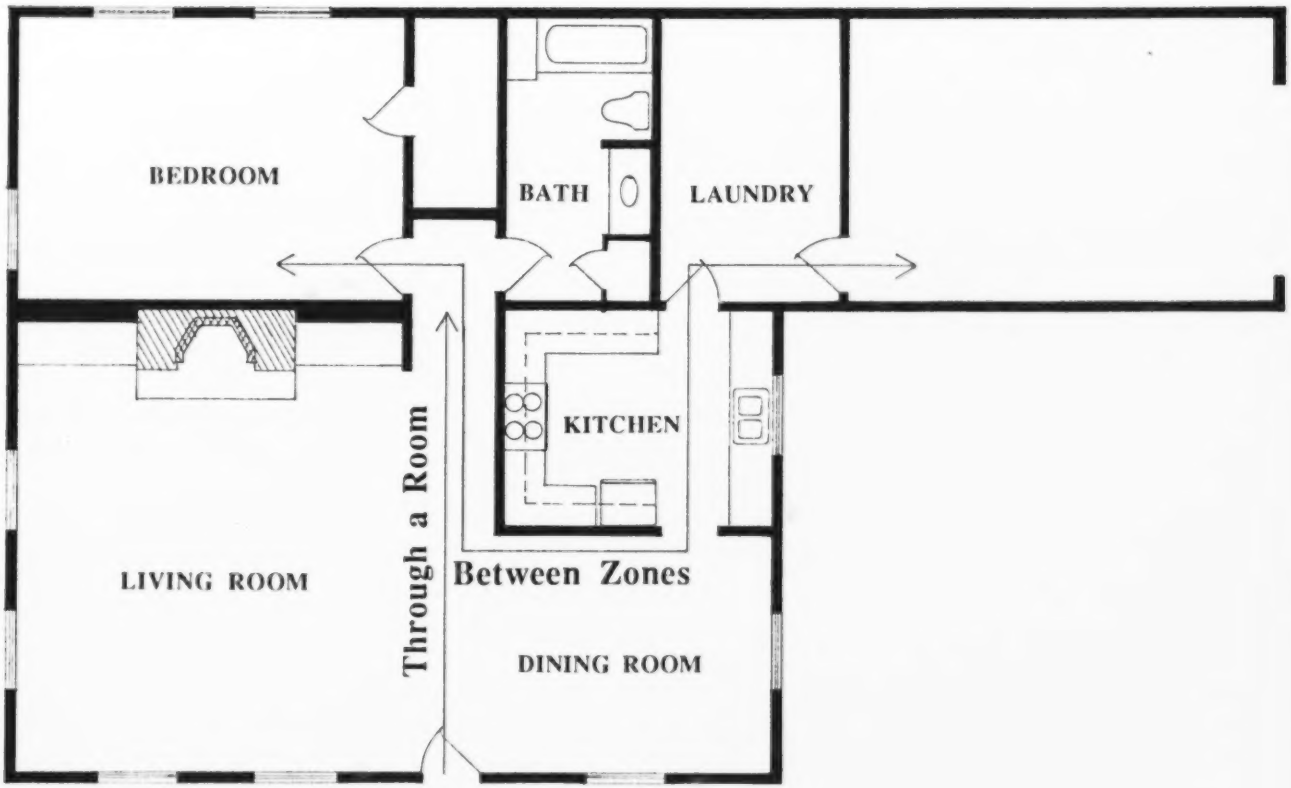




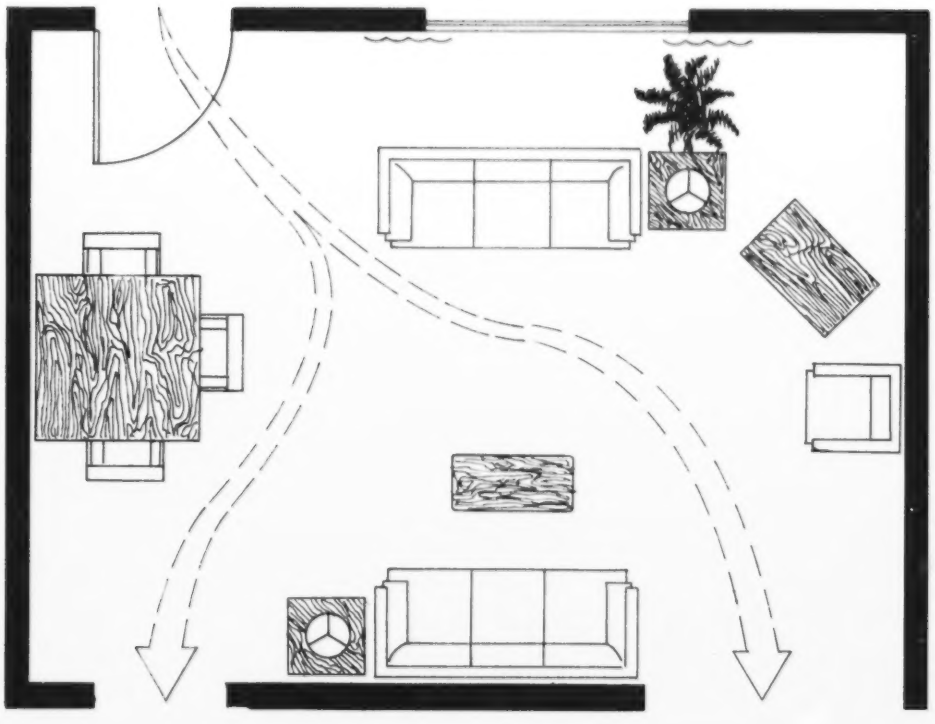
Spaces Needed for Furniture Arrangement

Area of Home	Space Needed
General	
major traffic pattern	3'
minor traffic path	2'
interior door	2'6"
exterior door	3'
Living Room	
space between sofa and coffee table	15"
space for feet in front of sofa	20"
seating space at desk	36"
Dining Room	
room at table for each adult	24"
room to get into dining chair	30"
serving space behind chair	30"
space for pushed in chair and dining table	20"
Bedroom	
space for making bed	20"
space for dressing	36"
space in front of closet	30"
space in front of chest	36"
space for getting in and out of bed	30"

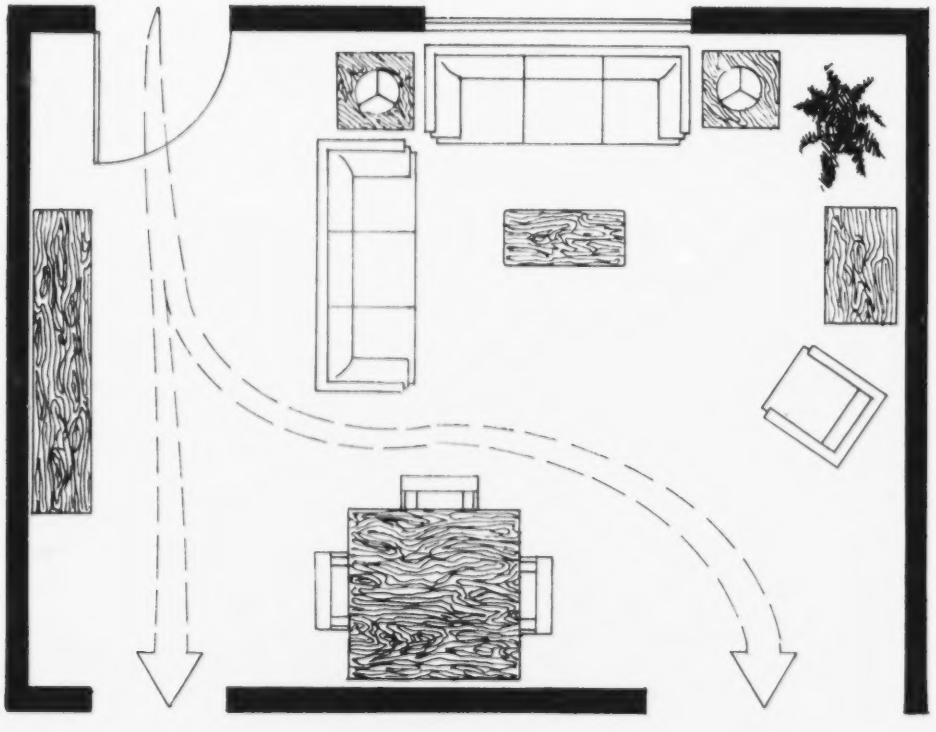
Traffic Patterns



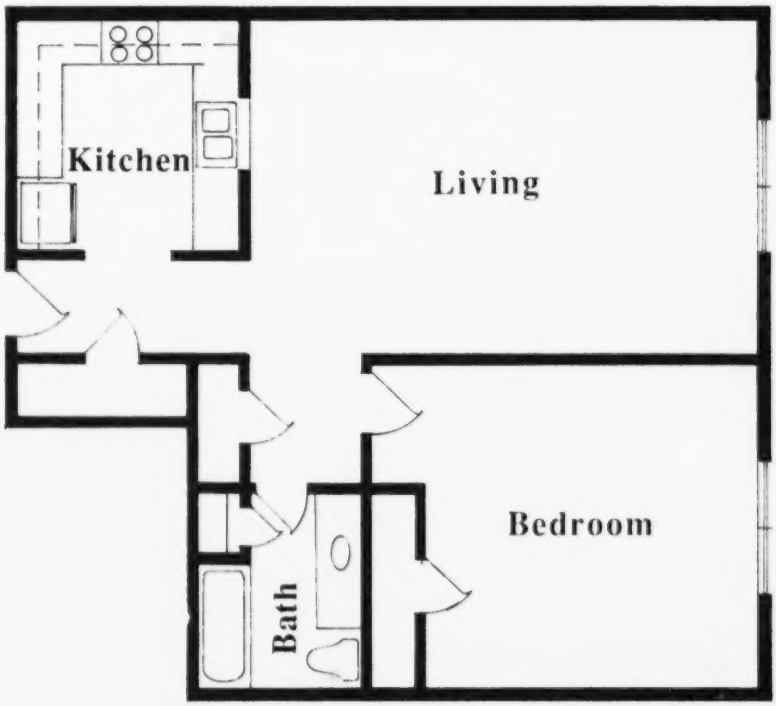
A

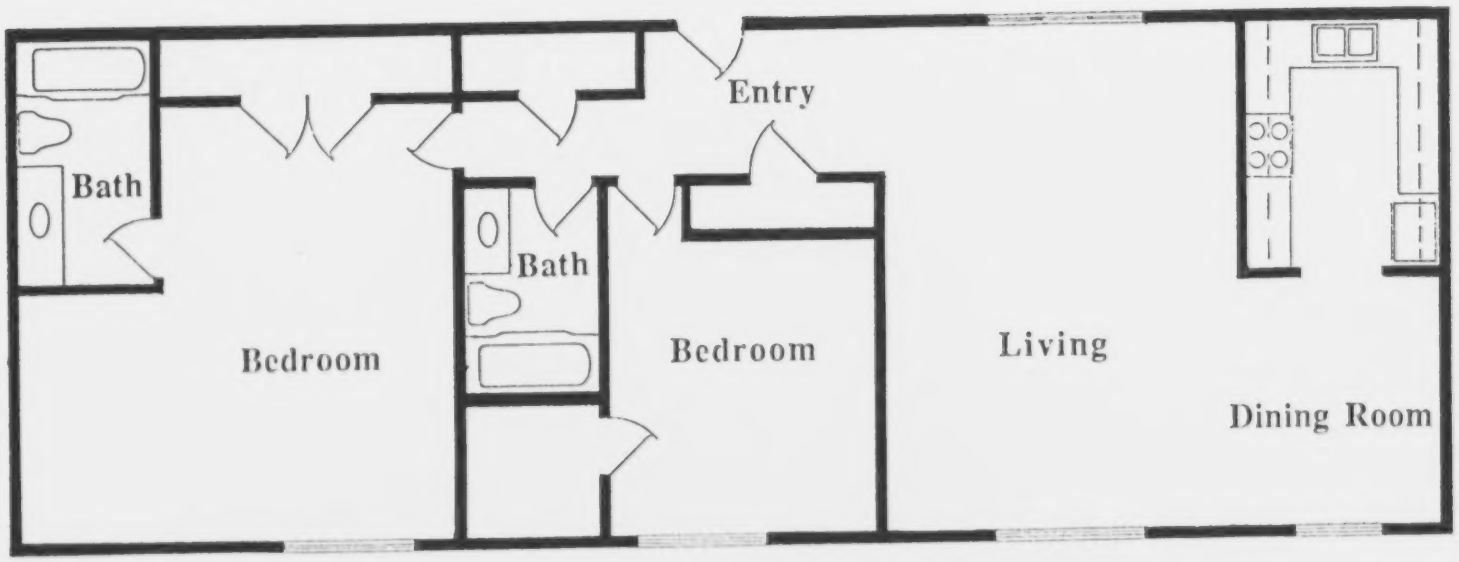


B



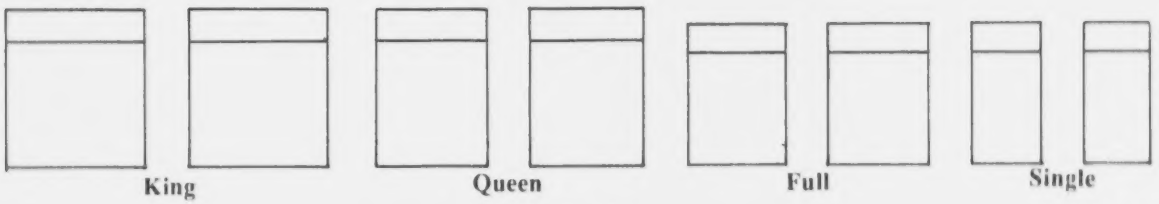
Creating Room Arrangements



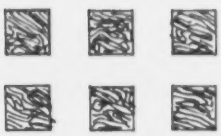


TA 42b

Creating Room Arrangements
Furniture Templates

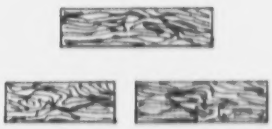


Beds

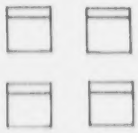


Night Stands

Chests

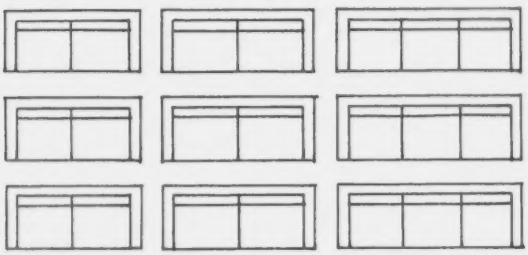


Dressers

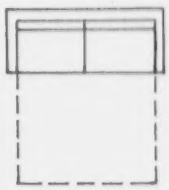


Chairs

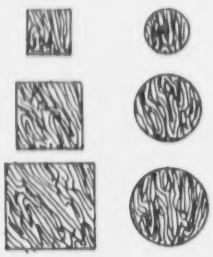
TVs



Sofas



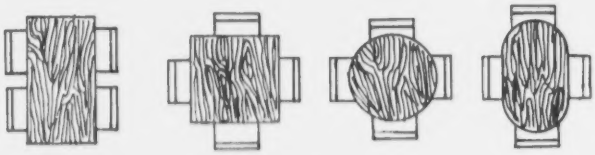
Sofa Bed



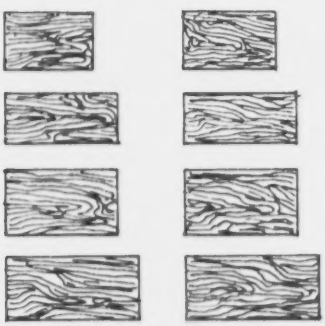
Coffee Tables

Hutches

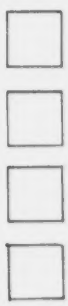
Armchairs



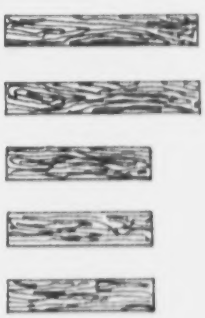
Dining Tables



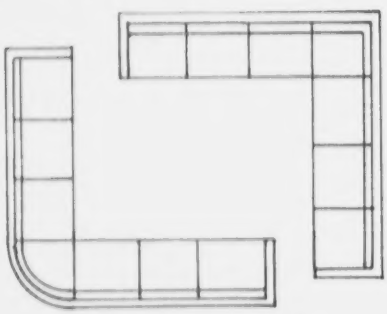
Desks



Ottomans

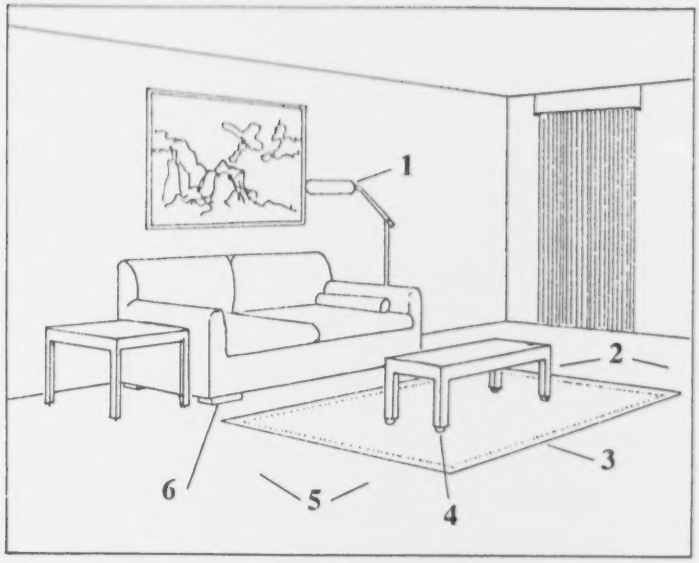


Bookcases



Modular Sofas

Housing Adaptations

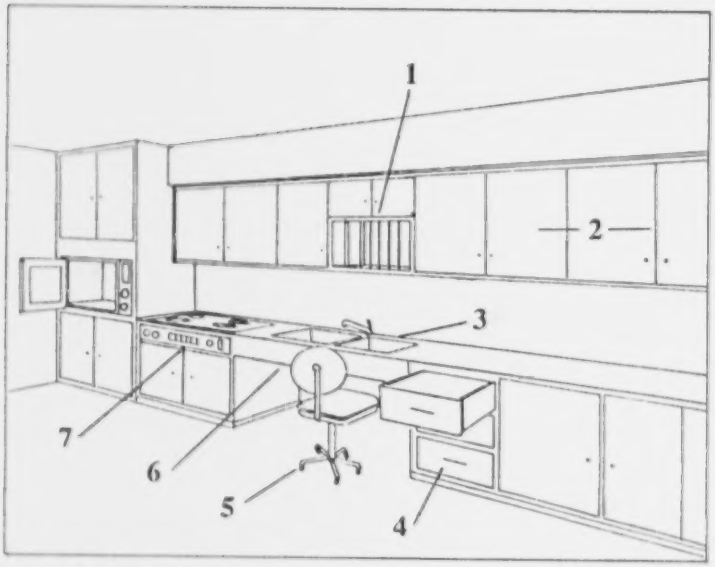


Living Room

1. Proper lighting
2. Walkways clear of electrical cords
3. Nonslip rug
4. Coffee table on wheels or casters
5. Space for wheelchair mobility
6. Sofa raised to height of twenty inches on hidden wooden blocks

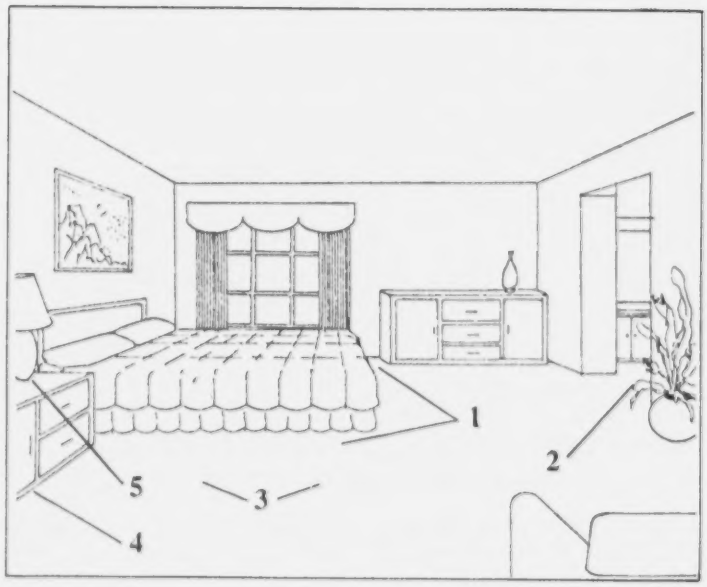
Kitchen

1. Racks above sink for shallow pans
2. Low wall cabinets
3. Shallow sink
4. Drawers within easy reach from chair
5. Chair on wheels or space for wheelchair mobility
6. Counter thirty-two inches high
7. Controls on front of stove

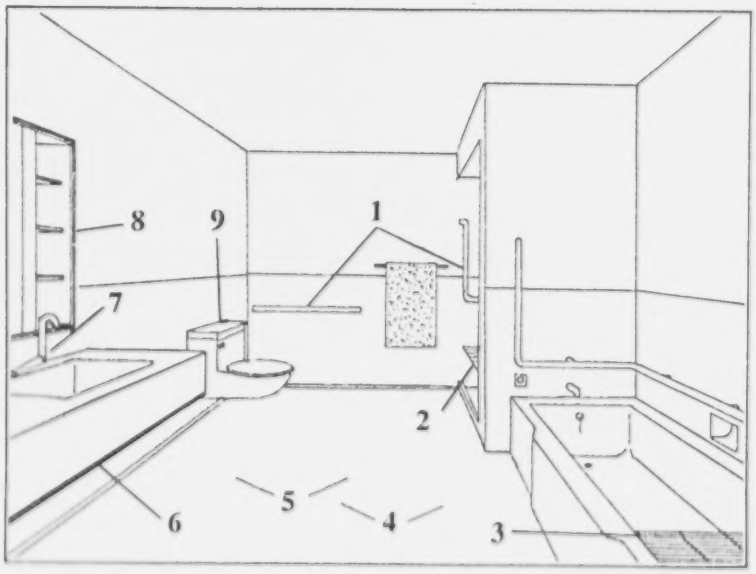


Bedroom

1. Minimum clearance of eighteen inches on both sides of bed (thirty-six inches between twin beds; forty-eight inches if occupant uses wheelchair)
2. Closet accessible by wheelchair
3. Space for wheelchair mobility
4. Bedside table for liquids, medicine, tissues, books, magazines, etc.
5. Light or flashlight conveniently located near bed



Bathroom



1. Grab bars fastened to tub, shower stalls, and wall by commode
2. Seat in shower stall
3. Seat in bathtub
4. Space for wheelchair mobility
5. Wall to wall synthetic fiber carpet
6. Sink thirty-six inches from floor
7. Lever-type faucets
8. Mirrored medicine cabinet
9. Raised commode seat

Checking a School for Accessibility

✓ **Sidewalks**

Are there curb cuts to provide access to sidewalks?
Are sidewalks at least 48" wide?
Are sidewalks level, without irregular surfaces?
Is there a level area 5' by 5' adjacent to each door?

✓ **Ramps**

Are handrails present (32" high)?
Is the grade of the ramp more than a 1" rise in every 12' length?
Does the ramp have a nonslip surface in all types of weather?

✓ **Doors (including elevator)**

Is there an opening of at least 32" when the door is open?
Are floors level for 5' on both sides of the door?
Are thresholds low enough to cross easily?

✓ **Floor**

Do hallways, stairs, and class areas have carpeting or some other nonslip surface?

✓ **Toilets**

Is at least one stall 3' wide and 4' 8" deep with handrails 33" high?
Are toilet seats 20" high and are urinals 19" from the floor?
Are sinks, towel dispensers, mirrors, etc. 36-40" from the floor?

✓ **Water Fountains**

Are the controls hand operated?
Is the spout in the front of the unit?
Are they mounted 26-30" from the floor?

Source: B.B. Greer, J. Allsop, and J.G. Greer. "Environmental Alternatives for the Physically Handicapped." *Implementing Learning in the Least Restrictive Environment.* Austin, Tx: Pro-Ed., 1980.

Principles of Storage

Storage should be...

Sufficient

- Ten percent of the space in a home should be allocated for storage.
- Storage facilities should be available in each room of the home.

Convenient

- Items used weekly or daily should be stored in or near the room they will be used.
- Seasonal items should be stored in permanent storage areas.

Flexible

- Storage space should be able to be changed as family size and interests change.

The types of storage space are...

Built-in storage space is permanently attached to the home.

- requires less space
- cannot be moved easily
- limits furniture arrangement

Examples include:

- closets
- cabinets

Freestanding storage space is not permanently attached to the home.

- requires more space
- can be moved easily
- is available in many sizes and styles

Examples include:

- shelf units
- wall units
- trunks
- storage racks

Interior Design Careers

Maintenance

- Rug cleaner
- Upholstery cleaner
- Floor cleaner
- Housekeeper

Research

- Textile technician
- Household products technician
- Laboratory tester

Design

- Color coordinator
- Drapery coordinator
- Home lighting coordinator
- Accessories coordinator
- Scenic arts coordinator
- Window display designer
- Floral designer
- Furniture salesperson
- Interior designer
- Drapery seamstress
- Slipcover seamstress
- Upholsterer
- Cabinet builder
- Sewing specialist
- Craftsperson
- Furniture refinisher
- Furniture delivery person
- Home decorator

Building and Remodeling

- Architect
- Draftsperson
- Carpenter
- Mason
- Insulation installer
- Plumber
- Heat/air condition specialist
- Plasterer
- Drywall installer
- Painter
- Wallpaper consultant

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Career Terms and Concepts

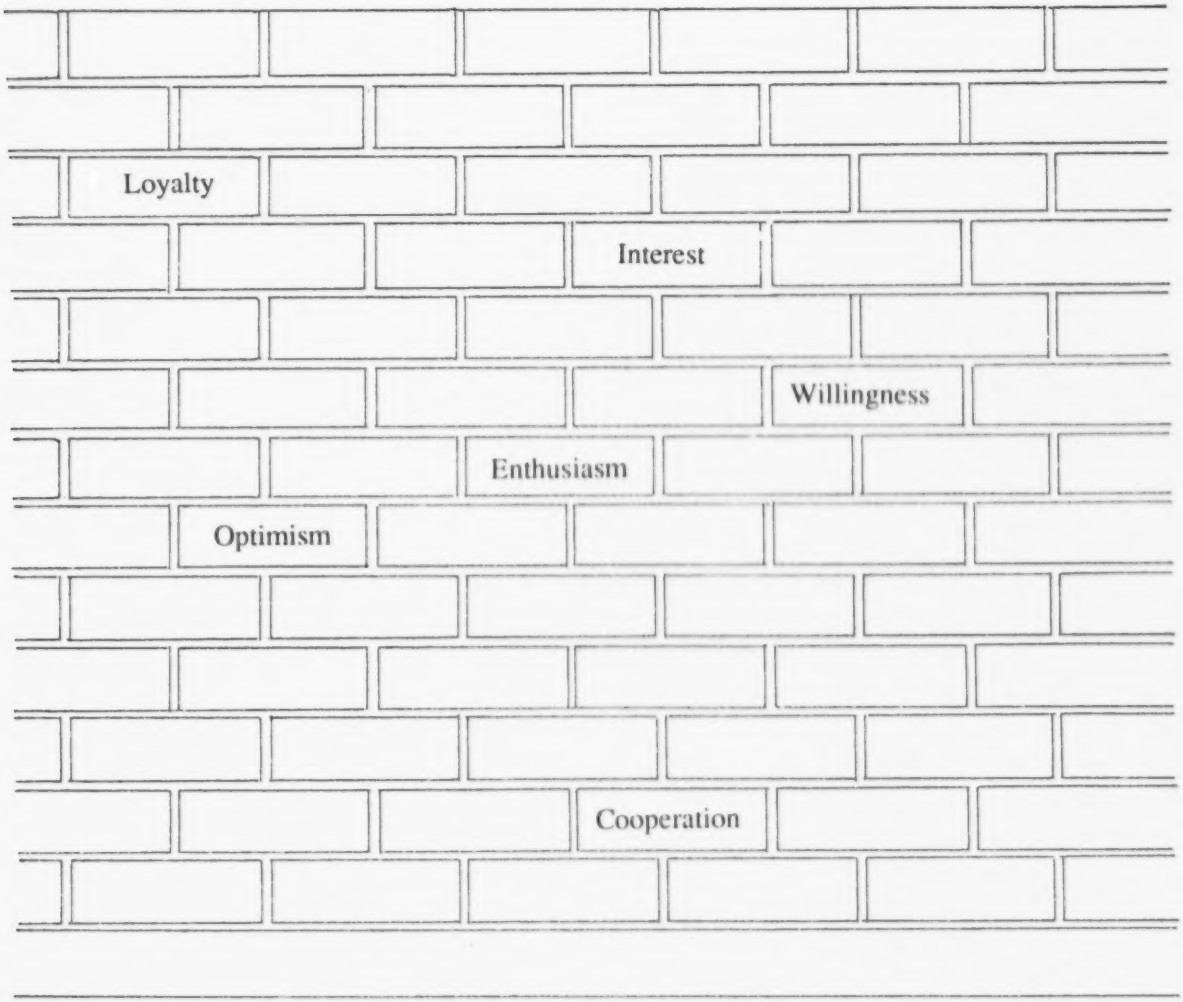
Define the terms and concepts below and discuss the implications.

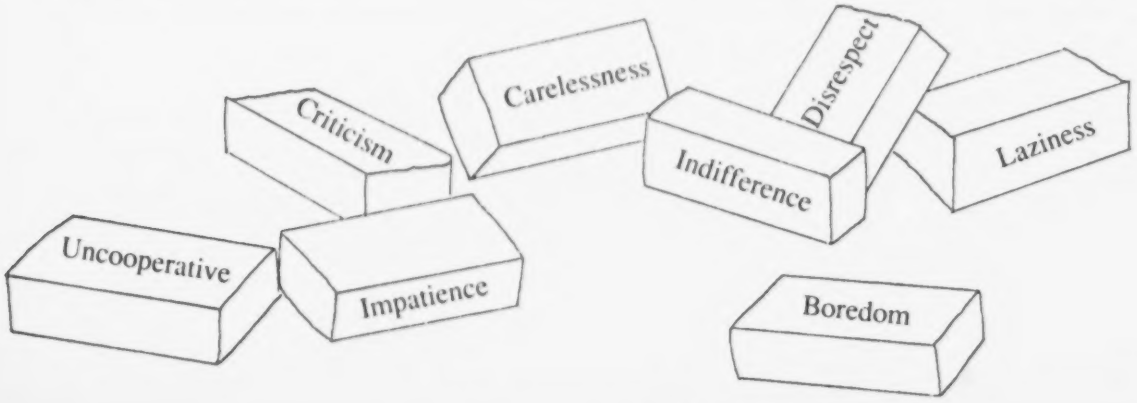
- advancement potential
- career
- compensation
- entry level
- experience
- fringe benefits
- hours
- job
- letter of application
- part-time job
- permanent position
- professional
- qualifications
- résumé
- salary
- self-starter
- semi-skilled
- shift
- skilled
- tenure
- union
- wages

Conduct on the Job

- Report to work on time.
- Take only the specified amount of time for lunch or coffee break.
- Keep an open mind; be willing to work hard and learn.
- Keep desk, locker, coffee counter, work area, and self neat.
- Obey rules of the company.
- Use good manners.
- Have a good attitude; be helpful and cheerful.
- Avoid gossiping.
- Be honest.
- Pay attention to details of work.
- Be supportive of employer, program, industry, and profession.
- Assume initiative.
- Be innovative.
- Look for ways to improve business.
- Keep lines of communication open.
- Obey professional ethics.

Attitudes for Success





Job Announcements

Help Wanted

Apartment Manager. Large adult apartment community in Northview area needs experienced manager with skills in leasing, bookkeeping, and management. Apartment management experience is imperative. Salary + apartment + full company benefits. 504-3020.

Architectural Drafter. Wilson Jones, Inc., seeks architectural drafter to work in construction department. Minimum 3 years experience in home construction. Neat work and appearance, congeniality a must. Salary negotiable, excellent benefits (including free lunch), some travel. To arrange interview, call Mark McGee, Personnel Manager, 350-2925.

Bath Shop Manager. Mature person with good taste to sell and manage fine bath shop. Good salary. No nights. 707-2323.

Domestics Buyer. Dallas promotional department store has opening for buyer of sheets, towels, linens, blankets, spreads, and fabrics. Send résumé to Box 14-M, c/o Dallas Morning News, Dallas, TX 75202.

Drapery Workroom Supervisor. Custom drapery and related items background. Knowledge of latest equipment essential. Must have ability to set up workroom and train personnel. Very attractive offer. Growing firm in Midwest. Contact Swags, Inc., Omaha, NE 60511.

Furniture Artist. Retail Furniture Artist experienced in furniture drawing, layout, using wash and penline. Good company benefits, good salary and good working conditions. Apply to John Kemp, Advertising Dept., Home Furniture Co., 2300 South St., Tulsa, OK 80560.

Industrial Designer. We are a major manufacturer of wall clocks. We are expanding our product line and are interested in seeking a designer with new concepts. Please reply including work history to 300 W. 50th St., Denver, CO 80216.

Interior Designer. A California based retail operation has an opening for an interior designer to head a young design team for an established housewares retail chain in Los Angeles. Successful applicant should have 3-5 years interior design experience and the ability to work well with people. Duties include supervising a staff of 2-4, and working with contractors. Interior Design degree preferred but not mandatory. We offer a competitive salary and a complete benefits package. Send résumé including salary history in confidence to Expression, Inc., 105 E. Mart, Los Angeles, CA 30511.

Landscape Trainee. Knowledge of plants, trees, and landscape installation required. Tree Top Nursery. 425-0963.

Job Profile

Investigate jobs available and list characteristics. Complete one job profile for each position investigated.

Job title_____ Employer_____

Location_____

Requirements:

Education_____

_____

Experience_____

_____

Technical training_____

_____

Innate skills and abilities_____

_____

Benefits:

Salary (beginning)_____

(scheduled raises)_____

Advancement potential_____

_____

Fringe benefits from company_____

_____

Prestige_____

_____

Job security_____

_____

Creative aspects_____

_____

Personal satisfaction_____

_____

Other_____

_____

_____